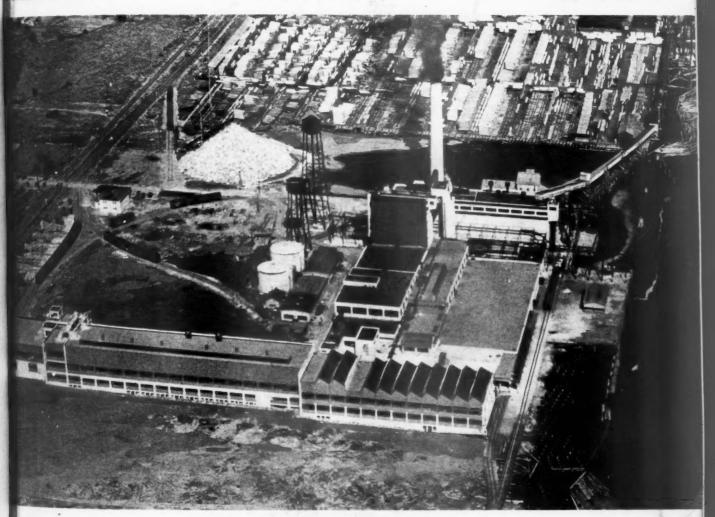
# PACH CONTROL ARTERIAL ARTERIAL

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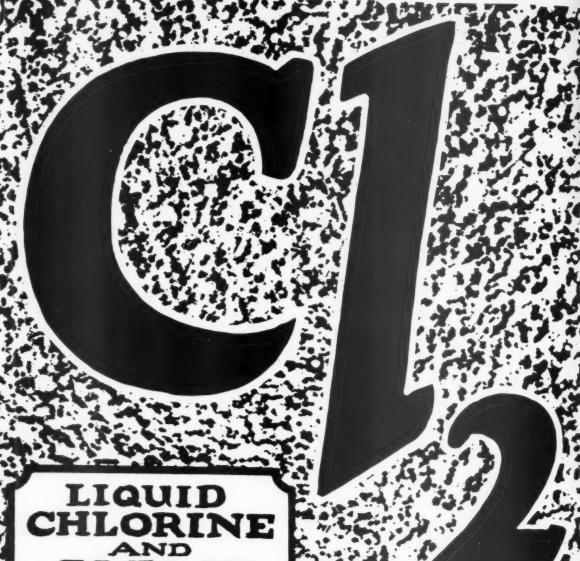
SEPTEMBER, 1929

\$4.00 Per Year Single Copies, 35 Cents



HOQUIAM, WASHINGTON

The new bond paper mill unit of the Grays Harbor Pulp & Paper Company is shown in the foreground. This is the mill in which the Hammermill Paper Company holds an interest.





9 Main St., San Francisco, California Works at Pittsburg, California

Pacific Fulp & Paper Industry is published once a month—except in March, when publication is semi-monthly—at 71 Columbia St., Seattle, Wash. Subscription: U. S. and Canada, \$4.00; other countries, \$5.00. Entered as second class matter May 26, 1927, at the Postoffice at Seattle, under the Act of March 3 1879. Vol. 3, No. 10, September, 1929.

## The Removable Fourdrinier The Choice of Leading Papermakers



Photo by Brubaker ... Tumwater Paper Mills Co., Olympia, Wash. 134" Beloit Removable Fourdrinier.



Thunder Bay Paper Co., Port Arthur, Ont., Canada. One 234" and one 245" news machine with Removable Fourdriniers.



Photo by Brubaker—St. Helens Pulp and Paper Co., St. Helens, Oregon. Kraft machine with 168\* Removable Fourdrinier with Aldrich High-Speed Shake.



Detroit Sulphite Pulp & Paper Co., Detroit, Mich. Two 132' sulphite tissue Yankee machines with Removable Fourdrinier and Aldrich High-Speed Shake.



Consolidated Water Power & Paper Co., Wisconsin Rapids, Wis. Two 160° news machines with Removable Fourdriniers.

Land the Removable Fourdrinier. The photographs on this page show but a portion of the new installations of the Beloit Removable. Some of these mills have several machines.

The severest practical tests possible in every-day papermill operation, over a period of six years, have proved to the foremost engineers and executives of the country that the *Removable* has more than made good. Not only has it made good, but it has paid its cost many times over in its almost phenomenal performance.

Any mill operating an old type Fourdrinier may have the Modern Removable feature installed on its old machine and thus secure the benefits of its many economies.

The Removable Way is the Modern Way



Photo by Brubaker—Hawley Pulp & Paper Co., Ore gon City, Oregon. 234" news machine with Removable Fourdrinier.



nternational Paper Co., Camden, Ark. Kraft paper. Fwo 210" Removable Fourdriniers with Aldrich High-Speed Shake at Camden, three 160" machines at Bastrop. L., 180 210" and 172" machines at Mobile. Ala.



Photo by Brubaker-Longview Fibre Co., Longview,



Dunn Sulphite Paper Co., Port Huron, Mich. Sulphite Papers. Two 132" Beloit Yankees with Removable Fourdriniers and Aldrich High-Speed Shake.



Kalamasoo Vegetable Parchment Co., Kalamasoo Mich. Sulphite Papers. 166" Removable Fourdrinis with Aldrich High-Speed Shake.

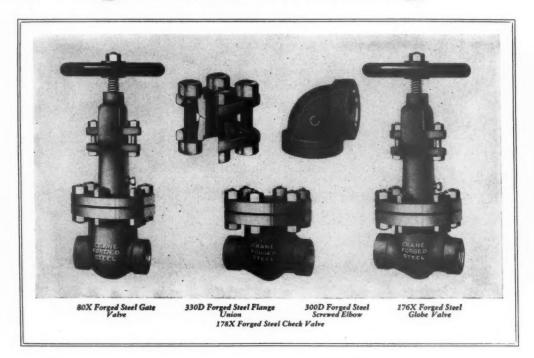
BELOIT IRON WORKS, BELOIT, WIS., U. S. A.

The BELOIT



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4

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"C" Class "400" Combination Chain Class Chain



"RC" Class Chain for power transmission

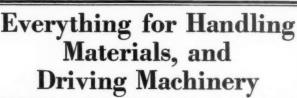


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"S" Spur attachment



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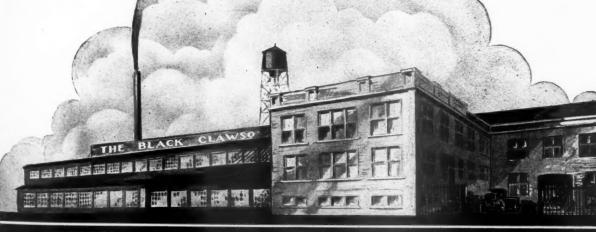
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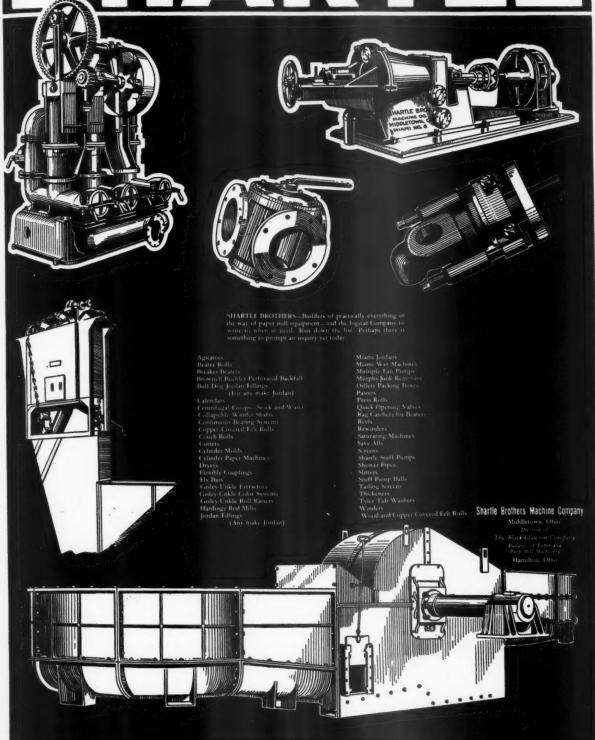
THE first press roll drive is one of the most vital factors in the paper machine. Appreciating this fact, the Cleveland Worm and Gear Company, in applying its reduction gear to this important drive, uses Norma-Hoffmann Precision Roller Bearings on both the worm and gear shafts. The confidence of this manufacturer in Norma-Hoffmann dependability is based upon the performance of these Precision Bearings in numbers of Cleveland Speed Reducers under a great variety of heavy duties, over a period of five years or more.

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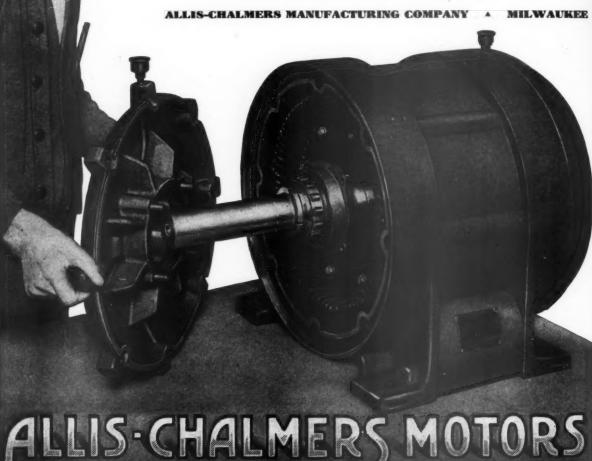
without sacrificing accessibility

. . . that was the thought in mind when the Allis-Chalmers type "ARZ" motor was developed. The active parts of this motor are completely enclosed, protecting the stator windings and the rotor — those parts that are subject to injury — from sulphurous gasses, acids, alkalis, dust, etc.

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"M & W" Four Drum Winder for Book Paper 18" dia. drums 150" face. Photograph taken in mill of Champion Coated Paper Co., Hamilton, O. (This is one of their 14 "M & W" Winders.

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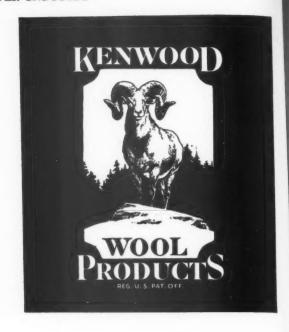
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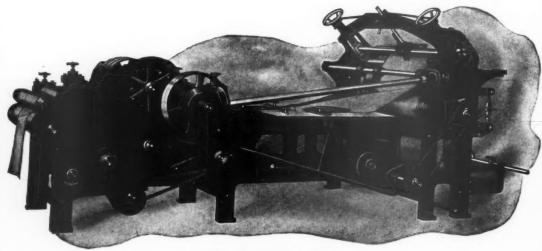
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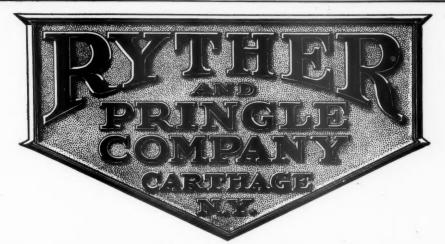
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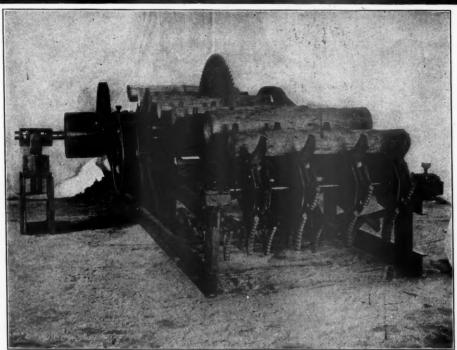
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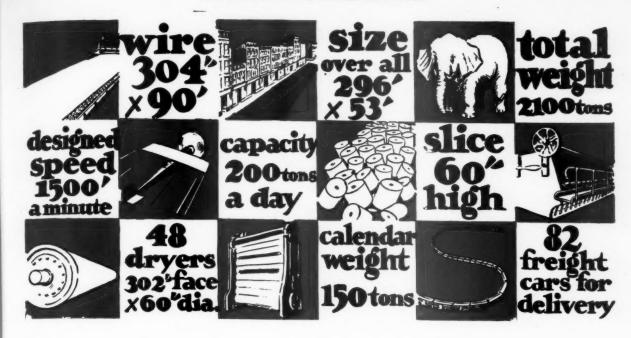
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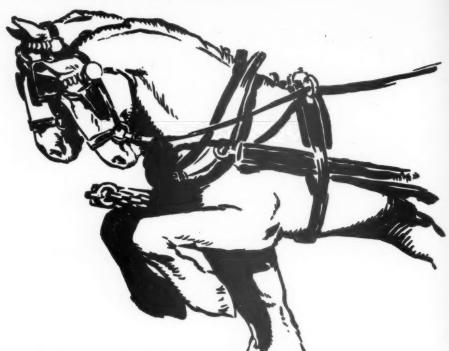


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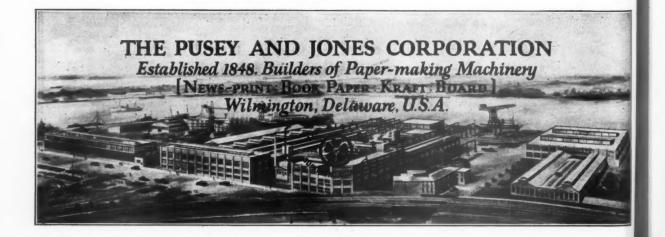


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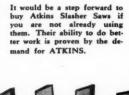


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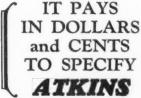
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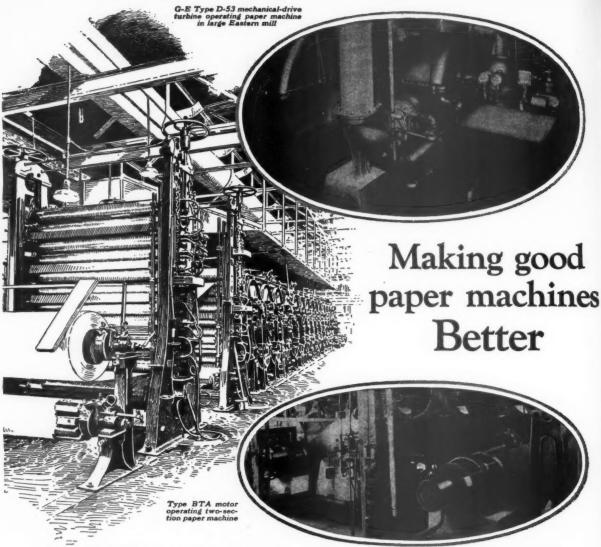
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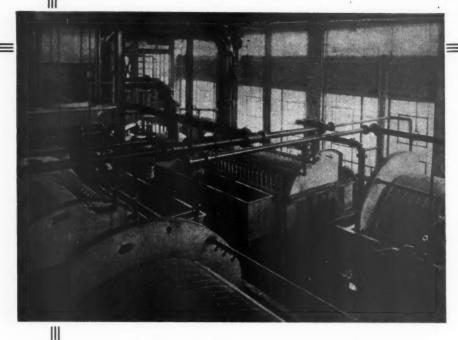


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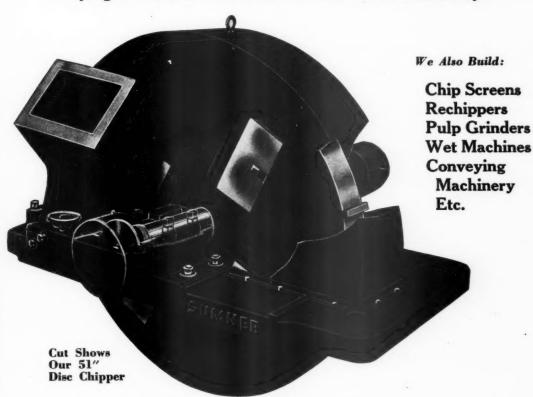
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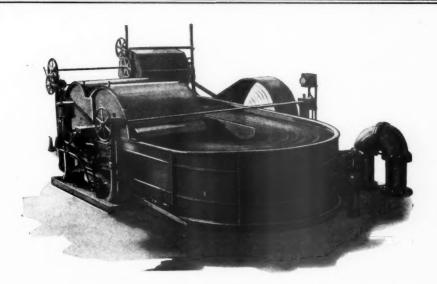
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# Pacific PULP& PAPER INDUSTRY

THE PACIFIC COAST JOURNAL FOR PRODUCERS, CONVERTERS, AND DISTRIBUTORS OF PULP, PAPER, AND BOARD.

Issued on the 15th of each month by Consolidated Publishing Co., Suite at 71 Columbia St., Seattle, U. S. A. Entered as Second Class Matter May 20, 1927, at the Postoffice at Seattle, Wash., under Act of March 3, 1879. Subscription, U. S. and Canada, \$4.00 a year; other countries, \$5.00.

MILLER FREEMAN, President L. K. SMITH, Manager



LLOYD E. THORPE, Editor
HARLAN SCOTT, Advertising Manager

Vol. 3

SEPTEMBER, 1929

No. 10

#### WANTED-

#### A forest Policy

The state is face to face with the largest single problem since statehood, namely, the continuing of the industry that supports the major part of its payrolls. It is a new problem and the state should lead the way, acting for itself and assisting private owners. Time should not be wasted by asking such questions as, how should we do it or can it be done, IT MUST BE DONE.

I commend you for your editorial entitled "Wanted—A Forest Policy." It is good, and right to the point.

CLARK V. SAVIDGE,

Commissioner,
Department of Public Lands,
State of Washington

I have read your very vigorous editorial and commend the way the points are hammered home.

Action must come thru the state legislature, but the real difficulty is that the average member of the legislature doesn't believe the lumberman when he tells the truth. The legislator fails to realize that the things you say in your editorial must have attention SOON unless very great loss is going to come to the average taxpayer regardless of whether he is in the lumber business or not.

J. J. DONOVAN,

Vice President,

Bloedel-Donovan Lumber Mills, Bellingham, Wash.

- In indicting the State of Washington as a whole with being blind and deaf toward the perpetuation of its forest industries the rain falls on both the just and unjust.
- Last month PACIFIC PULP & PAPER INDUSTRY made such an indictment. It pointed out the state, present leader in forest industries, was destroying its present supremacy and shortening its own economic future by failing to offer any guarantee of permanence to either established or prospective wood-using industries which convert the forest resources into useable wealth.
- That there are some hearts genuinely interested in

- the development of a sound forest policy has been evidenced in the attention attracted by the editorial of indictment, "Wanted—A Forest Policy".
- ¶ Two of the comments are reproduced on this page:
- ¶ Further, the editorial was reprinted in a number of daily and weekly papers of the state, a fact indicating a broadening interest in the need for a forest policy.
- What is chiefly lacking is concerted action by industrial and political forces. No policy will be evolved while petty obstructionists are tolerated. Nor can personal avarice be served. The problem must be looked upon as a problem of the state as a whole.

The State of Washington Has No Forest Policy and is Doing Nothing About Getting One

### The Paper Mill

A story of the new unit completed by

#### The Grays Harbor Pulp & Paper Co.

MUCH can be said about the new paper mill unit of the Grays Harbor Pulp & Paper Co. The present discussion confines itself to the general features of the new unit and a description of the flow of

Preliminary tests for construction began when the 150-ton bleached sulphite pulp mill—which began production in September, 1928 — was nearing completion. Actual construction of the paper mill unit started in November. In the steam and power plant of the pulp mill space had already been provided for additional steam and power to take care of the anticipated need of the paper mill unit.

A site immediately adjacent and at right angles to the pulp unit was chosen for the paper mill. Piles began to sink — not just for one unit, but also for a second machine — and the engineering staff of V. D. Simons which had designed and built the pulp unit simply shifted over a little and went right on with the building of the new paper unit. Likewise the contracting firm of Chris Kuppler's Sons moved their concrete mixers and men over on "the other lot" and kept right on going.

men over on "the other lot" and kept right on going.

The paper mill is housed in one long building, 700 feet long by 70 feet wide. The building runs in a general north and south direction with the finishing room

adjacent to the company's own deep water dock where finished paper can be loaded directly either into deep sea ships for Atlantic or Orient ports, or into railroad cars, which can be run in on a dock spur.

As stated above, the piling is already in for a second paper machine when the addition of same is deemed feasible. As for the building itself, the outer wall is temporary in character to facilitate expansion later. The building is of first-class concrete and steel construction, with steel sash used liberally. There are three general divisions to the building, namely, the beater room and storage chests, the machine room, and the finishing room.

The building has two levels throughout with the exception of the beater room where a mezzanine floor is provided for installation of the thickeners and apparatus for handling high density stock to the beaters. The machine, beaters and finishing room occupy the second level, the lower level being devoted to auxiliary equipment and chests.

All requirements of the paper mill in the way of steam, power, pulp and water are piped from the pulp mill in a single pipe gallery. In line with the general economies incorporated in the general engineering of the mill, all steam used by the paper mill is process



This view of the machine room taken from the mezzanine level affords an excellent general view of the installation,

steam, having been through the turbine room of the power plant and "skinned" for power first.

The pulp is pumped to two 25-ton concrete storage tanks situated at the north end of the paper mill. These tanks are equipped with suitable agitators. From storage the stock is pumped by a Beloit triplex pump to the mezzanine level, where it is thinned down and then passed through Improved Paper Machinery Co. deckerthickeners, which reduce the stock to a consistency of 8 per cent.

Here a new method has been devised to handle the stock at this consistency. The thickeners dump the stock into a trough which is fitted with a screw conveyor. This trough and screw extend the length of the beater room at the mezzanine level. The beaters are placed four at each side of the room and are filled from the conveyor above through copper pipe chutes of large diameter in fixed position.

The eight E. D. Jones beaters are of special design to effect a rapid circulation of the high density stock. They have tubs molded of concrete with insides lined with white porcelain tile, and all metal parts that come in contact with the stock are bronze, brass or copper, eliminating all corrosion. Each set of two beaters is driven by a single 200 h. p. Allis-Chalmers motor through texrope drives which permit a compact arrangement.

Size and alum tanks are located above and between each pair of beaters to facilitate the addition of these elements to the stock.

From the beaters the pulp is dropped to the beater chests and pumped as required through a Beloit triplex pump to the two E. D. Jones Majestic jordans of special design. The beater chests—as are also all other chests

except those for raw stock storage — are lined with tile in the same fashion as the beaters.

From the jordans the stock passes to the machine chest. An Allis-Chalmers centrifugal pump circulates the prepared stuff to the three Bird Screens at the head of the machine, from where it passes to the Beloit four-driner. White water is re-used and passed through an Oliver United save-all, mounted on the mezzanine level. More detailed description of the machine itself, which has a Beloit wet end and a Bagley & Sewall dry end, is presented in other pages of this issue.

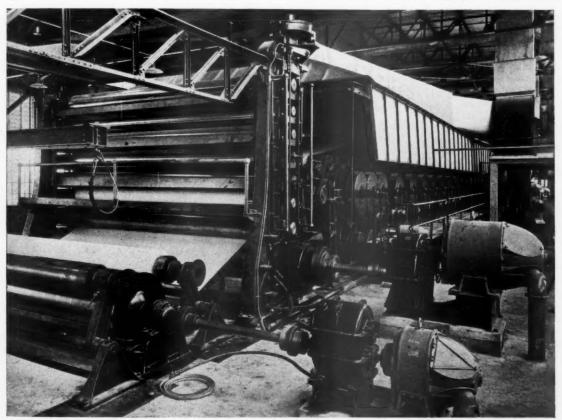
The machine drive is of the Westinghouse sectional electric type, with the main units mounted on the second level of the building and the D. C. motor generator set and other auxiliaries installed on the floor below. The other auxiliary machine equipment, such as vacuum pumps, are installed on the lower floor.

Broke and trim are dropped to the lower floor to be reconverted to slush stock in a Shartle breaker beater, installed beneath the rewinders, adjacent the calender stack, a location which is handily next to the wall which marks the north end of the finished paper storage room.

The work of the finishing room is carried out on the upper floor in an exceptionally well lighted and ventilated room. In this division, saw-tooth construction, with north lights is used. This lighting system was designed by the Puget Sound Sheet Metal Works of Seattle.

Finished paper, ready for shipment, is transferred by elevator to a large storage room on the lower floor, from which point it moves readily to cars or ships.

One of the notable features of the paper mill as a whole is the attention paid to proper heating and ven-



Looking down the back side from the winder end affords a good idea of the calendar and reel and their respective drives, of the enclosed drive gears on the dryers, of the hood and the general layout on the drive side.



There are eight beaters like this.

tilating. It has been the aim to provide air conditions in all departments that can be controlled at all seasons of the year. On the mezzanine floor two large blower fans are installed which drive the air over steam coils. Both the steam and air volumes may be controlled and this permits a close control of air conditions, an essential matter not only for the comfort of the workers, but for the proper manufacture of paper where full control of all elements is necessary. The conditioned and cleaned air is distributed to all parts of the building through a duct system.

Other features of the room include a composition hood over the dryers on the machine and an exhaust system for removing vapors. Above the fourdrinier, attached to the roof trusses, is another composition inner roof which is installed for the double purpose of preventing drip and to protect the fourdrinier in the event

An Allis Chalmers motor and centrifugal pump are used for white water circulation on the paper machine.

any work is necessary above this point. The roof of the machine itself is of cedar.

Plenty of room is the motif of the machine room. The roof is high, the room is wide and unobstructed by columns. A traveling crane spans the width of the room and is accessible for heavy lifting at any point over the machine, calender stack or rewinders.

#### Grays Harbor Mill Is Profitable

Issuance of 8,790 shares of preferred and 17,580 share of common stock of the Grays Harbor Pulp & Paper Co. has been authorized by the California Corporation Department. The money will be used to complete the corporation's mill at Hoquiam.

The shares will be issued in units of one preferred and two common at not more than \$124 a unit. The stock will be distributed to common stockholders of record August 20.

On June 30 the company had 54,927 shares of common outstanding.

The Gray's Harbor Pulp & Paper Co., during the first nine months of operation of the pulp mill alone, realized net profits, after all charges, including bond interest, depreciation and Federal taxes, amounting to \$277,772, according to a report sent to stockholders by President E. M. Mills in August.

The pulp mill commenced operation on September 27, 1928, and the reported net earnings are the result of operations to June 30, 1929. It is stated that the realization of an actual profit from a pulp mill in the first nine months of operation is almost without precedent, and the showing of the Grays Harbor operation is all the more remarkable in view of the fact that extremely cold weather interfered with a ready and cheap supply of raw material.

The Grays Harbor Pulp Co. was publicly financed with \$3,750,000 of first mortgage bonds, issued through Blyth & Co., and by preferred and common stocks, more than 80 per cent of which is in the hands of I. Zellerbach, E. M. Mills, J. D. Zellerbach, H. L. Zellerbach, Hammermill Paper Co., Polson Logging Co., and Robert Polson.

The total investment in timber lands, plant and equipment and other fixed assets exceeds \$6,500,000.

#### The Fourdrinier

It's the removable type, equipped with many improvements of special design

THE fourdrinier part of the new paper machine of the Grays Harbor Pulp & Paper Co., built by Beloit Iron Works, embodies a great many of the outstanding features typical of the latest type of Beloit fourdriniers which have been accepted by the trade as one of the most outstanding advances of paper machines today. The Hoquiam installation is of the shaking, removable type, with wire 202 inches by 90 feet, and equipped with Valentine slice. Some of the principal features of the fourdrinier part are as follows:

The Beloit patented "removable fourdrinier" is arranged so that the entire fourdrinier part may be removed as a unit by electric motor when changing a wire, obviating the necessity of handling any of the parts, saving a great deal of time, eliminating the wear and abuse of table rolls, etc., experienced with the ordinary fourdrinier, and thereby maintaining alignment of running parts, insuring longer wire life and most efficient operation.

The shake is the Aldrich Beloit patented type built for high speed. It is adjustable both as to stroke and speed while the machine is in operation, thereby enabling the operator conveniently to determine the correct motion that will give the best results in the shortest time. The Aldrich shake is designed so there are no wearing parts, permitting a snappy shake. All shaking parts in the machine are built very light and stiff to permit high speed.

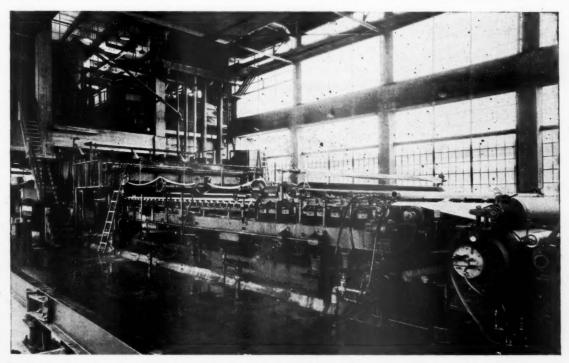
The fourdrinier part is also made "adjustable type", arranged to increase or decrease the pitch of the wire by motor while the machine is in operation. The device is designed so that the position of the head vat and breast roll remain permanent.

The breast roll is the Beloit patented type, large in diameter, built light and stiff and mounted in double Timken bearings.

The table rolls of proper size are built light and stiff and mounted in Timken bearings arranged for high speed and effective shaking. Table rolls and bearings are mounted above shake rails, this arrangement permitting the operator conveniently to observe the forming sheet on the wire.

Savealls under the wire are arranged so that they can be cleaned easily and no handling is required when changing wire.

The suction boxes are built very strong and are



Anti-friction bearings and careful balancing on the Beloit fourdrinier permit high speeds with small power consumption-



A view
of the back
of the
BELOIT

much lighter than ordinary. They are arranged with patented hydraulic oscillating device which keeps the covers of the boxes moving under the wire at all times, preventing grooving of covers and insuring longer wire life and easier guiding of wire.

On the Beloit patented type suction couch roll a direct drive with cantilever device permits the front end of the roll to be suspended in air when changing the wire, obviating the use of a cigarette holder. Preparatory to changing wire, the new wire is arranged in a loop on a small and handy truck, especially designed for the purpose of slipping the new wire over the suction roll without the use of a hoist. The wire poles are carried in light aluminum chucks arranged with wheels which ride on tracks stringing the entire wire and forming a loop without touching it by hand, eliminating the hazard of damaging the wire when putting on the machine.

It is also interesting to note that the method of supporting the packing in the inside of the suction roll is such that there is practically no wear on the packing or shell, permitting efficient operation of the roll with practically no change in power, regardless of amount of vacuum carried.

Every roll on the fourdrinier is equipped with antifriction bearings and carefully balanced for the speed at which the machine is to run. The small amount of power required to operate the fourdrinier is amazing.

#### Bird Screens Have Several Features

The Bird Machine Company supplied three large type 3A rotary screens for the Grays Harbor Pulp & Paper Company's new 202-inch machine.

These screens are somewhat special in that all parts of the screen which come in contact with either screened or unscreened stock are made of nonferrous material. This was done to prevent corrosion at any of these points with a viewpoint of course of minimizing the tendency of dirt from these causes. The screens also are equipped with a special method of entering stock at the drive end of the screen rather than from

the top. These end inlets are entirely submerged and the flow of stock into the screen is made very smoothly and without a tendency of trapping air. All of this is done to minimize the tendency of foaming at the screen.

The screens are driven by means of worm gear reductions attached directly to the drive shaft of each screen and the whole installation is then driven by one common motor. This makes a very compact and neat drive, and entirely eliminates the use of belts. By the use of flexible couplings between the reduction units and the screen itself any screen at any time may be thrown out of operation without effecting the others.

It was the aim of the Bird Machine Co. in designing these screens to build a set of screens which would provide for the highest efficiency of screening, not only from the viewpoint of removing dirt but from the angle as well of facilitating maintenance and operation and handling the stock.

#### Oliver United Saveall Installed

In connection with the new 202-inch bond paper machine of Grays Harbor Pulp & Paper Co. an American type saveall, built by the Oliver United Filters, Inc., is installed to clarify the waste white water from the machine. This saveall is 8 ft. 6 in. in diameter, eight discs with 680 sq. ft. of filter surface and built of special bronze and brass construction as required in the manufacture of high grade bond papers.

All pulp and filler recovered by the saveall is returned to the machine chest. Part of the clarified water is reused in the mill circuit, and any excess overflows to the sewer.

#### Grays Harbor Makes Bond Shipments

A carload of bond paper, the first produced by the new Grays Harbor Paper mill, was shipped to Cleveland, Ohio, August 3. A second shipment, 150 tons, was sent by freighter to San Francisco on August 8.

#### The Machine

Telling something of the engineering refinements necessary to make bond paper 202 inches wide

#### AT 1000 FEET PER MINUTE

MACHINES have been built bigger, but not better. In these terms may one suitably describe the new 202-inch bond paper machine installed and now operating in the new paper mill unit of the Grays Harbor Pulp & Paper Co. Those who have spent a generation in the paper industry can recount yarns by the hour of how 50 feet a minute and a yard wide used to be big, and fast. What has happened in the technique of paper machine building since those earlier days somewhat takes the breath away in sheer marvel at the rapidity of progress. With new machines being built all the time, and with pressure of competition becoming stronger for better and greater production, it is not surprising after all that each new machine installed is a step in advance of those that have gone before.

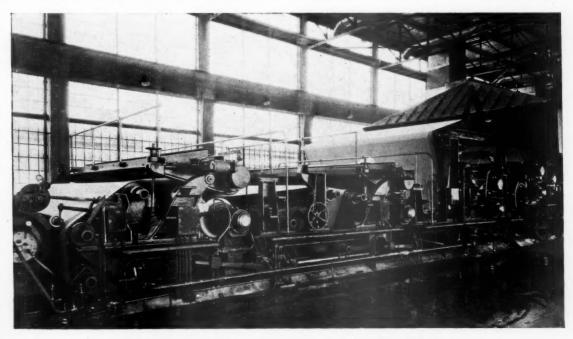
Some machines, however, take larger steps than others. That seems to be the case with the new Grays Harbor machine. It is the largest bond paper machine yet undertaken. With a wire width of 202 inches and designed to operate at a speed of 1000 F.P.M. it marks a significant advance in point of size and speed

alone for this grade of paper. But these attributes are not the sum total. The machine embodies a number of advanced refinements which make the installation an outstanding one, one in which makers, purchasers and engineers all around can be proud.

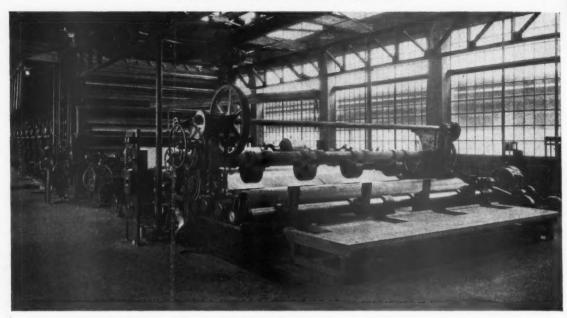
The entire machine as it stands installed is the fruit of the combined efforts of the engineers of the Hammermill Paper Co., of the engineering firm of V. D. Simons, and of the two machine manufacturers who jointly built it, the Beloit Iron Works for the four-drinier part, and the Bagley & Sewall Co. for the remaining sections.

The following description confines itself to the notable features of the press roll, dryer, calendar and winder sections of the machine, product of Bagley & Sewall, and is founded upon data supplied by President C. W. Valentine of that company. This machine, it is logical to state at this point, is one in which President Valentine takes a genuine and justifiable pride.

Some of the high points can be summed up in mention of the extensive use of anti-friction bearings throughout, of the silent, enclosed gears of small size



The Bagley & Sewall press section has a number of notable features.



The winder is equipped with a device for quickly discharging the finished roll without the use of overhead mechanism.

and full rolling contact, of the carefully finished and balanced dryer rolls. These features, and many others, are enlarged upon in succeeding paragraphs.

The press part combines ideas of design and construction of the Bagley & Sewall engineers with certain arrangements and features evolved by Hammermill engineers through their extensive experience in the

manufacture of bond papers.

Press frames are of heavy construction to meet heavy pressures. Provision is made for adjusting the top roll, and the presses are so arranged to effect ease of operation. The press part consists of three regular presses but the first press frame is so designed that a 30-inch suction roll may later replace the regular roll without altering the frame. First and second press felts operate straight ahead. The third press reverses. Automatic carriers take the paper from the second press through the third press to the smoothing press. Top rolls are of granite, 28 inches in diameter, while the bottom rolls are rubber covered.

Press bearings have steel journals carried on selfaligning bearings, ring-oiling and with a water cooling arrangement. They are of ample size to carry heavy

pressures.

Other features of the press part include special heavy type housings, special ratchet-type lifts for the top rolls, and an arrangement of key slots in the bottom press frames so that top rolls may be directly over the center of the lower rolls or couched as desired. All top press rolls are equipped with bronze blade, vibrating type, doctors. Automatic broke conveyors are supplied on first and second presses. There is also a save-all for each press piped out through the back side of the machine.

Felts, which are about 60 feet long, are arranged to give maximum ease for the handling of paper between the presses and from the press to the dryers. The felt rolls are of steel pipe covered with hard rubber, balanced, and fitted with cast iron heads having steel journals and carried on Timken roller bearings. There are motor driven vertical stretchers between the first and second presses and a horizontal stretcher for the third press. These are of the sliding type.

A four-inch aluminum blow roll is located ahead of the first and second press nip. Aluminum heads carried on anti-friction bearings are provided. Paper rolls for the third press are of seamless brass tubing equipped with Timken roller bearings.

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la lu E

A Bagley & Sewall type shower is provided for each

felt.

In place of the baby dryer a smoothing press is supplied with a rubber covered upper roll and gun metal lower roll. The lower roll is fitted with an oscilliating doctor with hard rubber blade to lead the paper into the dryers. The sheet passes straight through the smoothing press. The smoothing press has an individual drive.

Turn now to the main dryer part. Here the frame is of heavy construction with heavy cross member bracing and fully machined surfaces for all bearings and brackets. The dryer section is Bagley & Sewall's own development with an arrangement of gears which permits the back side of the machine to be kept as open as the front side. This arrangement is a great point toward neatness and greatly facilitates the removal of broke.

"This back side arrangement is only made possible," President Valentine explains, "by the degree of workmanship refinement never approached in the older type

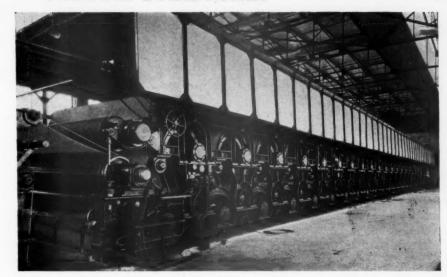
of machines.

"Dryers had to be in perfect balance with absolutely uniform wall thickness to prevent distortion from heating, the fitting of heads and truing of journals held to micrometer exactness to insure perfect concentric running; in fact, holding to micrometer accuracy in all details, such as mounting of roll bearings, gears, etc."

There are 40 paper dyers of 60-inch diameter with 200-inch face, arranged in two equal tiers. All dryers are bored to uniform wall thickness and tested on their own journals at a speed of 1000 F.P.M. under normal steam pressure and are perfectly interchangeable. The dryer heads are of the double wall type especially designed to maintain rigidity and shape. They are not fitted with manhole or handhole plates.

Timken roller bearings used on the dryers are en-

Dryers
by
BAGLEY
&
SEWALL



closed in a special form of bearing casing providing for self-alignment. Arrangements are made for a circulating oiling system, with the main pieces of this lubricating equipment installed on the lower floor. Every revolving part of the dryer section is mounted on Timken roller bearings.

A distinctive feature of the Grays Harbor machine is its quiet operation. This is mainly due to the gears employed. These gears are of small diameter on the dryers with intermediate idlers, permitting of the proper dryer centers with gears of approximately half the usual diameter. They are of the solid hub, web type, perfectly finished and balanced with a special form generated tooth giving a full rolling contact.

Due to the smaller diameter which reduces the gear periphery speed to about one-half of the old type gear and the perfection of tooth formation, these gears are practically noiseless at even the highest paper making speeds. All gears are fully enclosed in machine finished gear casings.

The dryer part is a very distinctive development and is a revelation to those having experience with old design and construction where attempts to bring them up to high speed have been made. Another important feature of the dryer section is the Bagley & Sewall patented steam joint in which roller bearings support the weight and also take the end thrust due to steam pressure. These steam joints carry an adjustable siphon pipe which permits of determining the position of the siphon in the dryer from the outside, the siphon pipe being also adjustable from the outside.

There are six felt dryers providing two dryers for each of the wet end felts and one dryer for each of the dry end felts. All are mounted on self-aligning Timken roller bearings and are driven by the felts.

There are two bronze cooling rolls located after the last top dryer and arranged for water cooling with special fittings.

The two 196-inch calendar stacks—six and ten rolls each—are Bagley & Sewall heavy, standard type with bottom roll bearings of large size, self-aligning, ring-oiling and water cooling. These bottom bearings are equipped with a small motor-driven oil pump of high pressure capacity. Operating this pump a few moments before starting the calendar stack tends to relieve the pressure of the rolls from the bottom bearing, at the same time furnishing lubrication, thus relieving the

tremendous starting torque when the calendar rolls have been idle for some time.

The Bagley & Sewall reel is of the uniform speed type providing, by use of reduction gears, easy changing from one roll to another.

A high speed two-drum winder of Bagley & Sewall type with 196-inch drums is a very much improved type having a number of features. All revolving parts are carried on roller bearings. There are compensating counterbalances at each end offsetting the increasing weight of the paper roll as it builds up. There is an automatic roll-handling attachment for removing the finished paper roll from the winder to the floor in a few seconds without the use of any overhead mechanism. The winder is built to operate smoothly at speeds up to 3000 F.P.M.

The machine drive is of the Westinghouse Electric sectionalized type with separate units for the several different parts of the machine entire. Main drive units are located on the upper or machine floor and the motor generator sets and other auxiliaries are installed on the floor below.



This close-up of the dryer drive illustrates the small size of the drive gears, the machine finished gear casings and the adjustable siphon pipes and patent steam joints.

### The Reason Why

Something about the management and

#### WHY HAMMERMILL CAME WEST

REQUENTLY it is asked, "Why did the Hammermill Paper Co. come to the Pacific Coast?"
The reasons are many and a close study of statements given to the press will provide the answer.

For a number of years the Hammermill Paper Co. has been producing bond papers at its Erie, Pa., mill. Production and sales have been increasing steadily. Because of the growing demand for the Hammermill products it became necessary to install another paper machine, either at Erie or at some other location.

At this time the Rainier Pulp & Paper Co. had completed a new 135-ton bleached sulphite pulp mill at Shelton, Wash. Mr. E. M. Mills, president of the Rainier company, with other associates, was starting construction on a similar and somewhat larger mill on Grays Harbor. The executives of these companies extended an invitation to the Hammermill Paper Co. to

join them in the construction and operation of a paper mill on the Pacific Coast in connection with one of these pulp mills.

After careful studies had been made and many arrangements had been discussed, Hammermill Paper Co. decided to accept the invitation of the men who were building the Grays Harbor mill and build with them a paper mill at Hoquiam, Wash.

By the time that all the many necessary preliminary details had been thrashed out the Grays Harbor Pulp Co. had about completed its pulp mill. With the trade there was a sort of tenseness in the air that portended something big. This tension was relieved on July 14th when the Hammermill Paper Co. announced from Erie that "for the purpose of erecting a new paper mill on the Pacific Coast it had entered into a business

(Turn to page 36)



In this photo of the finishing room is more than just a tale of engineering and design. Here is bond paper made principally from surplus wood which less than two years ago had no other outlet than the refuse burners of sawmills.

# The Electric Drive

A study in refinement of speed control

By K. L. HOWE

Westinghouse Electric & Manufacturing Co.

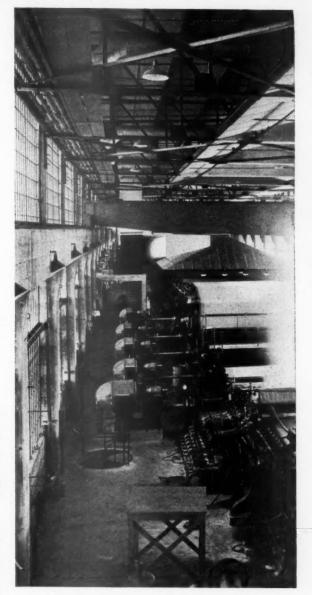
A PPLYING a sectional drive to the 202-inch paper machine of the Grays Harbor Pulp & Paper Co., represents a study in refinement of speed control, rather than a combination of equipment of unusual size. The quality of paper to be made, as well as the speed range over which the paper machine must be operated, are factors which are of prime importance and require accurate constant speed as well as flexibility of control.

The couch and three main press sections have individual motors; and the smoothing press section is also separately motored. The entire drier section is mechanically tied together through the gear system, but the builders of the paper machine arranged four intake shafts to the dryer, for four motors spaced opposite each quarter section of the dryer system. Since the dryers are mechanically tied together the four dryer motors must be so adjusted as to regulate for speed with equal control. The calendar sections are separately motored, and on the winder a very interesting two-motor drive eliminates the use of cone pulley for obtaining proper paper tension on the finished roll.

The main winder drum and tension roll are separately motored and the speeds of these two motors may be so adjusted as to obtain the proper tension for all winding speeds. Adjustment of paper tension is obtained by rheostat control, with the rheostats mounted convenient to the operator; and, as a check on winding conditions, ammeters indicate the loads which these motors are carrying.

The main control board consists of a very much simplified motor control arrangement, since the starting generator type of control is used on this machine.

The main motor generator set consists of motor and two generators, one generator being the constant voltage



The electric sectional drive is Westinghouse

generator supplying constant potential energy to the running bus, while the other generator serves as a starting generator, normally operating at very low voltage, to which each motor is individually connected at the time of starting, after which the voltage is increased to accelerate the drive motor up to its ultimate running speed after which it is transferred to the main bus. With this simplified scheme of starting, we not only get a very uniform acceleration, but no armature resistance of any kind is required; while, at the same time, very few pieces of control apparatus are mounted on the main control board for each section. The net result is a very much simplified main control switchboard.

Various motor driven auxiliaries to this paper machine are equipped with full automatic motor control. With full automatic control the method of starting and operating is identical regardless of the number of different electricians and paper makers who manipulate this apparatus.

#### The Reason Why

(Continued from page 34)

enterprise with Isadore Zellerbach, Edward M. Mills, J. D. Zellerbach, Harold L. Zellerbach, M. M. Baruh, of San Francisco, J. Y. Baruh of Los Angeles, and John C. Higgins of New York."

The announcement stated further:

"The proposed mill will have an initial capacity of 50 tons per day and will be designed for the making of bond and writing papers and specialties. It will be erected adjacent to the pulp mill of the Grays Harbor Pulp Co. now under construction at Hoquiam, Washington. This location will place it favorably in the midst of the last extensive stands of timber suited for pulpwood use in this country.

"The production and sale of the paper from the new mill will be under Hammermill management."

Subsequently the name of the Grays Harbor Pulp Co. was revised to the more all-inclusive form of Grays Harbor Pulp & Paper Co. This new company, which is the final fruition of the IDEA, is a company all its own. It is not the Hammermill Paper Co. It is not Zellerbach. It is, as the original announcement stated, "a new enterprise" in which the Hammermill Paper Co. holds a substantial interest along with a number of well known Zellerbach officials.

#### **Executive Staff**

Today the officers of the Grays Harbor Pulp & Paper Co. are: E. M. Mills, president; Isadore Zellerbach, vice-president; J. D. Zellerbach, vice-president; S. Sonnenberg, treasurer; W. L. Raymond, secretary. The directors include the following additional: Harold Zellerbach, Norman W. Wilson, W. F. Bromley, W. T. Brust and W. S. Lucey. Mr. Harold Zellerbach is head of the Zellerbach Paper Co., jobbers, while the last four named are, respectively, vice-president, secretary, assistant treasurer of the Hammermill Paper Co. and Mr. Lucey is resident manager of the plant at Hoquiam.

The Hammermill Paper Co., having spent vast sums in scientific research and technical control to perfect and standardize its products and having spent further sums in advertising to build up the reputation and market for these products, desire naturally to retain complete control of the manufacture and sale of the products of the new paper mill. To accomplish this end it set up a subsidiary organization known as the Grays Harbor Corporation, which has complete control of the manufacture and sale of the paper produced at Hoquiam.

Making up this auxiliary corporation are:

Norman W. Wilson, president; W. S. Lucey, vicepresident and general manager; W. F. Bromley, secretary; and W. T. Brust, treasurer. Completing the board of directors are the following: E. M. Mills, J. D. Zellerbach and Harold Zellerbach.

To bring Hammermill methods to Hoquiam the following key men in addition to Mr. Lucey have been transferred to Hoquiam from Erie to occupy the positions noted: J. C. Manion, paper mill superintendent; Hilary Obert and John Weibline, assistant paper mill superintendents; Lenus Pfeffer, superintendent of the finishing room. All these men grew up with the Hammermill Paper Co. In addition to these men Hans Obermanns, general superintendent of Hammermill at Erie, spent several weeks at Hoquiam at the start of production to assist in getting things running.

#### That Hoquiam Water Question

The long drawn-out condemnation trial of the city of Hoquiam (Wash.) against the Oregon-Washington Water Service Corp., in which the city sought to condemn and take over the company's system which is Hoquiam's domestic water system, came to a close in August when Superior Judge J. M. Phillips set a price of \$510,000 on the system.

This trial was watched with interest by pulp and paper people because it was closely interwoven with negotiations between Aberdeen and Hoquiam for the purchase of industrial water by Hoquiam from Aberdeen's Wynooche system, and because it was felt that should Hoquiam take over the system it might supply industrial water at any point within the city. There have been many rumors of pulp mills to be constructed in Hoquiam and industrial water has been one of the hottest points of argument.

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The ultimate outcome still cannot be foreseen. It is expected that the Oregon-Washington company will

appeal to the state supreme court.

Hoquiam entered into an agreement with Aberdeen some time ago to construct a pipe line from the Hoquiam-Aberdeen dividing line to prospective mill sitess if Aberdeen would sell it industrial water on the basis of a 14,000,000-gallons a day minimum. The guarantee of this industrial water was slated to bring about the start of construction of a big pulp mill, presumably by Clarence Blagen of the Grays Harbor Lumber Co., or some of the Blagen-Polson interests in Hoquiam. Rumors continue that Blagen is still contemplating a mill but nothing definite has been announced.

#### Port Mellon Construction Delayed

Construction at Port Mellon, B. C., where the Vancouver Kraft Co., Ltd.—one of the group of Leadbetter mills—is rebuilding the old mill of the Howe Sound Pulp & Paper Co. into a modern 100-ton sulphate pulp mill, is reported temporarily delayed pending arrival of various units of machinery from Europe and various adjustments awaiting decision of President F. W. Leadbetter.

Some reports current that the company had abandoned the project are entirely discredited by company

Some delay has been experienced with different mechanical units. Digesters ordered from Europe have been several months in arriving and some building has been held up pending their arrival. The company will adhere to its original decision to install a turbine.

The wharf was completed several weeks ago. Boilers have been installed. The lumber mill, built in connection with the pulp mill, has been operating to some extent.

#### Fir-Tex to Start Construction

The Fir-Tex Insulating Board Co. was to start immediate construction on its proposed insulating board plant at St. Helens, Ore., according to an announcement on September 13 by A. E. Millington, vice-president and general manager. General contract has been awarded to J. F. Shea of Portland. Orders have been placed for a Beloit fourdrinier and a Coe dryer. Other equipment awards are pending. The initial unit will have a daily capacity of 250,000 sq. ft. in three shifts. Construction will be pushed with all speed and production is expected to start in the spring. Financing has been virtually completed, Mr. Millington said.

## $T \cdot A \cdot P \cdot P \cdot I$

### Pacific Coast Section Meets October 5

HEN President P. H. Glatfelter of TAPPI brings down the gavel to mark adjournment of the annual fall meeting of TAPPI at Richmond, Va., (September 24, 25, 26) he will immediately board a train for the Pacific Coast, where, on Saturday, October 5, he will attend and be the principal guest and speaker of the fall meeting of the Pacific Coast Section of TAPPI.

Tacoma, Washington, where the Coast meeting will be held, is all set to be host for the gathering. The Hotel Winthrop has opened the doors of hospitality and is cooperating heartily with the Section executives to make the meeting a success. The hotel is providing the delightful Roof Garden for the business sessions, and the Crystal Ball Room for the evening banquet.

Although at the June meeting of the Section in Seattle it was voted to hold the fall meeting in September, the date has been moved over into October so that it would not conflict with the national meeting of TAPPI or with the meeting of the American Chemical Society. By keeping the dates clear those men who desired to attend more than one meeting could do so.

#### Krimmel Uncertain

Besides President Glatfelter some other technical men from the East are expected to attend the Pacific Coast Section meeting, but their plans were indefinite at the time of this writing. M. A. Krimmel, of the Hammer-mill Paper Co., Erie, Pa., and vice-president of TAPPI, has expressed a hope that he might attend, but was not certain that he could meet the date. C. M. Baker, engineer for the American Paper & Pulp Association, has advised that, altho important litigation has seriously interfered with his original plans, he has now arranged his itinerary so that he will be able to make his proposed trip to the Pacific Coast and attend the Section meeting. To do this, however, he has had to give up his plans to attend the national TAPPI meeting at Richmond. Mr. Baker will talk on stream pollution problems, this being a phase of work which has occupied practically his entire attention with APPA for some time.

Chairman C. R. P. Cash (Cascade Paper Co., Tacoma) of the Pacific Coast Section states that the meeting will occupy a full day with a banquet in the evening. A program of technical papers of prime interest to the western industry has been sketched out, and these papers with discussion will take up most of the day.

#### Interesting Program

The program will include a wide range of interesting subjects, including "Use of Chlorine in the Production of Pulp"; "Pulp Mill Water Supplies"; "Stack Losses in Sulphate Mills"; "Sodium Sulphite-Hydroxide Ratios in Sulphate Cooking" and others. The program has not been announced in its entirety at this writing, nor is it likely that it will be announced before the distribution of the programs at the meeting on October 5, it being the desire of the program committee to inject some elements of surprise.

Although the meeting is of primary interest to mem-

bers of TAPPI a general invitation to all interested has been extended. This merely carries out the sentiment voiced at the June meeting at which time it was voted to adhere to a policy of "come one, come all" as far as the papers and discussions were concerned. The feeling was that much of the material discussed would be of interest to a much wider group than TAPPI members alone.

Since the movement began to inaugurate a Pacific Coast section of TAPPI considerable interest has been aroused among operating men in particular. Some of these men are mightily interested in developments but are not members of TAPPI, in many cases due to some technical qualifications of membership. The "open door" policy adopted by the Pacific Coast section will permit this group to attend and to benefit by the discussions.

There will be at least one and perhaps two business sessions which will be confined to TAPPI members. There are at present some 70 members of TAPPI on the Coast. All these members are automatically members of the Pacific Coast section, for, as has been previously mentioned, the purpose of organizing the Pacific Coast section is merely a matter of convenience to permit Pacific Coast men to attend meetings in person, the privilege of which they have been virtually deprived heretofore, due to the geographical distances separating them from the usual meeting places, as for example this year, the meeting at Richmond, Va., on the extreme opposite side of the continent.

There are some things that the Pacific Coast section (Turn to page 46)

The annual fall meeting of the

Pacific Coast Section

of

 $T \cdot A \cdot P \cdot P \cdot I$ 

will be held in

TACOMA, WASHINGTON

at the Hotel Winthrop

Saturday, October 5, 1929

## T-R-A-D-E - T-A-L-K

#### Devoted to the Paper Trade of the Western States

#### Third Zellerbach In Presidency

The third of a direct family line of Zellerbachs to occupy the presidency of the Zellerbach Paper Co., San Francisco, stepped into the position Sept. 3 when Harold L. Zellerbach was elevated to the executive chair.

Harold Zellerbach succeeded his father, I. Zellerbach, who was the company's second president. The first president was the pioneer founder, Anthony Zellerbach, Harold's grandfather. I. Zellerbach left the presidency of the paper company to become chairman of the firm's board of directors. He, of course, remains president of the Crown Zellerbach Corporation, the holding company.

The new president has been actively connected with the company for the past 12 years, following his graduation from the University of Pennsylvania. Among the many positions he has held in the organization are: manager of the export department, manager of the San Francisco division and assistant to the president.

Harold Zellerbach is a brother of J. D. Zellerbach, president of Fibreboard Products, Inc., and holder of other offices in the Crown Zellerbach subsidiaries. Harold is also a vice-president of Crown Zellerbach.

Back of the elevation of Harold to the presidency, one Zellerbach official explained, is the thought that the firm desires to place the younger men in posts of action and to retain the older heads for counsel.

In taking over the presidency of the Zellerbach Paper Co., Harold Zellerbach becomess head of a company which grew from his grandfather's little basement store back in the '60's to annual sales of more than \$28,000,000. Anthony Zellerbach, the founder, established his business as a "paper merchant" in 1868 and later incorporated as "A. Zellerbach & Sons". Later this firm name became the Zellerbach Paper Co. Today this firm is one of the important subsidiaries of the Crown Zellerbach Corporation, one of the largest paper units in the world.

#### Paper Jobber Golfers Lose This One

Golfing printers of Los Angeles trimmed their paper jobber opponents by one lone point on August 26 in the second match for possession of the Ben Franklin Golf Cup at the Bel-Air course. Last year the Paper Trade golfers won with 22 points to spare.

Ted Denison of Blake, Mossitt & Towne led the jobbers and Bert Rose captained the printers team.

The team line up and the result of the matches are as follows:

Geo. I. Tompkins
Ted M. Denison vs. Bob Gick
Paper trade won 1 up.
F. M. Couch
J. Y. Baruh vs.
All even.

John Steward
J. R. Coffman vs. Denison Gee
All even.

The team line up and the result of the matches are

Carl Hatch
Frank Dun
Frank Norm 3 up.
G. L. Williams
Paper men won 5 up.
Paper men won 5 up.
Frank Kennedy
Paper men won 5 up.
Frank Dun
Fra

Victor Hecht, manager of the Los Angeles division of the Zellerbach Paper Co. spent his 1929 vacation in Honolulu.

#### Forsythe Represents Several Companies

A

co

John L. Forsythe, eastern mill man, who came to Los Angeles some two years ago on account of his health now is representing the following companies as their agent on this coast: W. B. Ogelsby Paper Co.; Paul A. Sorg Paper Co.; Frank Smith Paper Co.; Combined Locks Paper Co.; Advertisers Paper Mills and Taylor-Logan Co.

Mr. Forsythe will be associated with L. P. Sine, popular mill representative. Their new office is at 700 Herman W. Hellman Building, Los Angeles.

Mr. Forsythe was born into the paper business—his father having been a most successful eastern mill man—and has been connected with the mill end of the business all his working years, and consequently has a wide knowledge of the paper business.

On September 8, Mr. Sine and Mr. Forsythe left Los Angeles for the north on a business trip. Mr. Sine will only go as far as San Francisco, but Mr. Forsythe before returning will visit Spokane, Seattle, Tacoma, and Portland.

#### Changes in Sierra Paper Company

A change in sales managers has been made by the Sierra Paper Co., Los Angeles. E. H. Jackson is the new sales manager. He has gained a wide experience in paper and printing by reason of his connection in executive positions with a large printing establishment in Des Moines, and his recent four years connection with a Los Angeles printing and lithograph house.

Development of their fine paper business with printers has caused the Sierra company to add W. F. Miller to the sales organization. Mr. Miller has had many years of experience in selling paper on the Pacific Coast. The company also have employed de Burjac Etienne, formerly with the Chicago paper firm of Bradner-Smith Co. Mr. Etienne will be active in the Sierra's sales promotion department.

The Sierra company has added thirteen new lines of printing papers, bond, book, cover, ledger, and mimeograph. The fine stationery line has been doubled. New sample books will be out October 13.

Development of business has caused the general offices of the Sierra to be remodeled and arranged along lines to secure greater efficiency and desk space.

George I. Tompkins, vice president and general manager, reports marked improvement of business in September.

#### Whitehurst Injecting Zellerbach Efficiency

A move toward greater operating efficiency in the various divisions of the Zellerbach Paper Co., is being made by Graham Whitehurst, field representative of Eugene Breyman, general manager of the operating department of the company's headquarters. Mr. Whitehurst is visiting division headquarters and is superintending the rearrangement of stock so that faster service in the handling of paper can be achieved. At present Mr. Whitehurst is in Seattle, having completed his work in Portland.

#### Begin Work on New Packer-Scott Unit

Construction on Packer-Scott Company's new Seattle branch house was started early this month at 1233 Sixth Avenue S. The building will be one-story, of reinforced concrete, and will cost \$40,000. Plans call for completion about November 1. Trackage facilities are provided. The company will carry a full and complete stock of paper and janitor supplies, according to W. C. Scott, vice-president.

During construction temporary quarters will be maintained in the Terminal Sales Building. For the time being orders are being filled from the Portland house, recently removed to a new location at Front and Couch streets. Arthur D. Hosfeldt, Portland sales manager, will also have charge of sales at the Seattle branch.

C. W. Browne, who was in charge of the Medford, Ore., branch, which was recently sold to Blake, Moffitt & Towne, will have charge of the paper department in the Puget Sound city; the janitor supply department will be in charge of F. C. Fiske.

Since its inception the company has maintained a policy of operating the two divisions separately. C. M. Packer is president of the firm, with headquarters in Portland.

#### Philbrook Shifted to San Francisco

Frank R. Philbrook, who has been the Los Angeles representative of the Graham Paper Co., for a number of years, has become assistant to C. E. Swick, Pacific Coast manager for the Graham company, his new duties requiring him to move to San Francisco. Mr. Philbrook, who for 22 years has been connected with the paper business, both in the mill and jobbing end of it, for the last eight years has been in Los Angeles, where he has made countless friends, who regret to see him leave Southern California. However, "Phil" expects to make frequent visits to Los Angeles.

Ralph Reid, San Francisco, will succeed Mr. Philbrook as Los Angeles representative of the Graham Paper Co.

#### B. M. & T. Price List Out

The new Blake, Moffitt & Towne price list is being distributed to the trade. The list follows the system of listing by carton pack, which has been generally adopted by paper wholesalers.

Among the features of the book is the fact that it is made up of loose leaf sheets which can be replaced when price changes occur. The plan is to mail these loose leaf changes to the dealers and also to have the salesman deliver them and make the changes in the book personally, thus assuring the retailer that his price list is always up to date.

The book is encased in a sturdy leatheroid cover of red and black, the Blake, Moffitt & Towne colors. Among the new lines advertised are two-toned Cathay cover, Tribal, a brilliant cover which replaces the Washington Brilliant line and Charlemagne, a distinctive fine paper for direct mail advertising.

#### C. R. Foss With Paul Jones & Co.

C. R. Foss, until recently manager of the coarse paper department, Zellerbach Paper Co., Seattle division, is now with Paul Jones & Co., Seattle paper dealers.

The offices of Taverner and Fricke, Los Angeles paper jobbers, have been rearranged to secure greater economy in floor space and better efficiency.

#### Alexander Finds Eastern Paper Mills Busy

A. D. Alexander, San Francisco representative of the L. L. Brown Paper Co., manufacturers of high grade ledgers, linens and bonds, returned August 5 from an extended business trip through the Western states, spending some time in Salt Lake and Denver, and later visiting the mills at Adams, Mass. While in the East Mr. Alexander spent a few days with relatives in New England and at his early home on Cape Cod, then returning to San Francisco by boat from New York via the Panama Canal.

"Business conditions generally were found good for the summer season in all the cities visited; and at the mills things were humming in an effort to keep pace with the increasing demand for 'better' papers. The fallacy expressed by so many printers during recent years that 'nobody wants, or will buy, high grade papers any more,' doesn't hold good and is exploded with a bang when one gets a glimpse of production in a mill specializing in fine papers such as are produced in the L. L. Brown mills," Mr. Alexander said.

#### Letterhead Broadside Brings Results

Modern art, modern typography and modern design are in vogue. Even unto the letterhead, which, after all, though an impersonal salesman, represents the firm that sends it.

To encourage some constructive selling among its printer customers for better letterheads, the Zellerbach Paper Co. distributed a broadside on the subject in which were reproduced in full colors 22 distinctive letterheads designed for western firms engaged in all types of business from plumbing to jewelry importing.

The broadside brought an unusual response, so Rollie Ayres, who sent it out, tells us.

#### Tompkins Heads 1929 Convention Program

W. D. McWaters, president of the Pacific States Paper Trade Association, has appointed George I. Tompkins chairman of the program committee for the next annual convention of the association at Del Monte. Mr. Tompkins most ably acted in this capacity for the last convention. He expects to call a meeting of his committee shortly after the first of the year to consider plans for the next convention program.

#### Rogers Returns to Coast

Sydney Rogers has returned from Beckett, Mass., to Brentwood Heights, Los Angeles, where he will continue to represent the Crocker-McElwain Co. and the Chemical Paper Mfg. Co., both of Holyoke, Mass., for the Pacific Coast territory. With his family he drove East in June to spend the summer in Massachusetts.

#### Sam Knode Visits Coast

Sam C. Knode, vice-president of the Albermarle Paper Manufacturing Co., Richmond, Va., was on the west coast in August and September selling blotting papers.

Emmet W. Buckley, manager of the Los Angeles division of the General Paper Co., and wife recently returned from a three weeks vacation trip to Portland, Seattle, and Victoria.

Al Kuhn, director of sales at the Seattle office of the Zellerbach Paper Co. recently visited in San Francisco, making the trip on account of the illness of a relative. Set-up Folding Corrugated Solid Fibre

## BOARDS and BOXES

A department for interests allied with the pulp and paper industry

Board
Mills and
Paper
Converters

Apples in Paper Boxes

When the apple crop of the Wenatchee valley is harvested this fall, hammer, nails and pine boards are going to find that the paper box and the glue pot have made further inroads into their one time exclusive domain.

Increased use of the paper box for the shipping of fruits is reported by orchardists along the Pacific Coast and paper box makers are finding the manufacture of fruit boxes a lucrative field for increased sales. Some of the advantages listed for paper boxes are: lighter, reducing freight charges, filled or empty; quicker to pack, a few strokes of the glue brush and the box is ready for shipment; the paper box lends itself more readily to attractive design which serves to increase consumer sales.

Not only are the manufacturers of heavy cardboard, fibreboard and boxboard containers making sales to apple shippers, but fancy folding and set up boxes are used, as well as small cartons holding a single apple.

The Apple Vender Co., Seattle, has for the past two years promoted the sale of fancy cartons of apples holding from one apple to a dozen. "This season," Mr. Massie, sales manager of the company, declares, "we expect a greater demand than ever for the fruit by the holiday trade. Westerners find these boxes of choice apples appreciated as Thanksgiving and Christmas gifts by their eastern friends. We will pack the apples both in folding and set up cartons."

#### Wuxtry! Dick Brooks Is Found!

Los Angeles, Calif., Aug. 15.—(Exclusive)—Dick Brooks has been found! The mystery surrounding the whereabouts of M. V. Brooks since he left San Francisco and the Pacific Straw Paper & Board Co's sales managership has been cleared up by private operatives who followed a yellow car around Los Angeles.

The yellow car was a new Reo (advertising) and in it they found Dick driving around in the torrid Southern California summer selling paper boxes for Clarence Kerr of the Hollywood Paper Box Co. Dick had turned in his other car for this fine new bus and had been too busy boulevarding to write to his old San Francisco friends to tell them of his new connection.

Over the Labor Day holiday Dick took some Los Angeles friends and sped forth to St. Helena, above San Francisco, to do a little deer hunting.

#### He Manages To Keep Busy

Down in San Diego there is a paper box man who not only is superintendent of a good-sized plant but also is the firm's only outside salesman and who does everything else to be done, in an executive and sales capacity.

This major-domo is C. Cooper and the plant is the San Diego Paper Box Co., manufacturers of set-up and

folding boxes. This plant for years belonged to F. J. Weiss and, following his death, was sold to T. A. Allen and H. B. Culver, San Diego men.

Mr. Cooper was with Mr. Wiess for many years and under the new ownership was given charge of the establishment. New equipment was added recently.

#### Art Department Brings the Business

"It costs money but it brings in more business." So says A. R. Detmer, speaking of the art department recently installed at the Keystone Box Co., Seattle.

Alfred Green is the art director. He has his office in the plant and when a buyer wants suggestions for designs Mr. Green is there to give them. "Thus we save time, ours and the customers," Mr. Detmer declares. "The customer realizes that a box bought from us will possess originality. As a result of some of Mr. Green's work we have been able to bring in several large outside accounts, which would otherwise have gone to other concerns."

Nine months ago the Keystone box company moved into their new daylight plant, north of the Seattle business district. Since that time a constant expansion program has been carried on. Last month an automatic wrapping machine, with an automatic gluer and suction conveyor was installed. This piece of equipment increased the capacity of the plant by 7,000 boxes per day. To improve the quality of the box built by Keystone a new extension edge machine has been installed.

With the addition of the new machines the plant will go on straight line production. This, also, will help to increase the plant's capacity and will cut down costs, by reducing handling in process of manufacture.

#### New Paper Container Plant at Salt Lake

President C. P. Castle of the Western Paper Products Co., Salt Lake City, has announced that his company will build a new \$66,000 building at Fifth South and Fourth West, containing about 25,000 square feet of floor space, to house a plant for the manufacture of paper boxes and fibre containers. It will be ready by next spring.

#### Columbia Box Issues House Organ

Devoted to better packaging, Volume I, Number 1 of "Box It" has made its appearance, sponsored by the Columbia Paper Box Co., Portland, of which George G. Guild is president.

"Box It" will be distributed to customers, actual and potential, and will be filled each month with sales helps and will, in general, preach the idea of more and better packaging.

#### Louis Allain Dead

Louis B. Allain, secretary of the Puget Sound Paper Box Co., Seattle, died Aug. 25. Mr. Allain was 62 years old and had been associated with the box company for the past five years.

#### Mr. Jos. H. Slater

Gen. Mgr. Escanaba Paper Co.

with practical experience of over 40 years in paper manufacturing, said in his paper read before the Superintendent's Convention at Wassau-



THE PAPER INDUSTRY

machine properly and carefully handled by the second secon

It has been our job insuring this economy and we're still on the job

property to body on what is graded on to seed which is more of the bestings, or shall be a first a second of the bestings, or shall a first a Statement product, by the claim is one.

The J. O. Ross Engineering Corporation and Ross Engineering of Canada, Limited, are the only organizations of engineers devoting all their time to providing scientific Heating and Ventilating for Pulp and Paper Mills exclusively. The entire paper industry has benefited greatly by the results secured from installation of Ross Systems.

Ross-Briner Economizers (Licensed under patents of E. A. Briner & John E. Alexander)

Ross Grinder Room Exhaust Systems Ross Vapor Absorption Eystem

Ross-Grewin High Pressure System Ross Machine Room Systems

#### J. O. ROSS ENGINEERING CORPORATION

208 W. Washington Street CHICAGO

Main Office-122 East 42nd Street **NEW YORK** 

519 American Bank Bldg. PORTLAND, ORE.

ROSS ENGINEERING OF CANADA, LIMITED NEW BIRKS BLDG., MONTREAL

## Everett

witnesses a start of construction by the

### Puget Sound Pulp & Timber Co.

VERYTHING is set at Everett, Wash., for an immediate plunge into a program of construction on the proposed 175-ton bleached sulphite pulp mill of the Puget Sound Pulp & Timber Co. Following close on the announcement by President Oasian Anderson that the financing arrangements had been completed, Hardy S. Ferguson, New York consulting engineer who is designing and supervising construction of the new mill, arrived in Everett to complete plans in conference wth J. F. McCarthy, his personal representative, who is to be resident engineer on the Everett job.

Major contracts for construction were placed, as this was written. Albertson, Cornell Brothers, Tacoma contractors-who had the general contract for construction of the recently completed 120-ton sulphate pulp mill of the Union Bag & Paper Power Corp. at Tacomawere awarded the general contract for the Everett job. Puget Sound Bridge & Dredging Co. were awarded the contract for dredging a 30-foot channel in front of the site to provide depth for ocean vessels. The earth removed is being used to fill in a portion of the site.

Several thousand piles are being driven in the site by the Amercan Pile Driving Co., of Everett. Contract for supplying structural steel was awarded to the Isaacson Iron Works of Seattle.

Most of the details of equipment for the mill had been settled at the time of announcing the general contracts, but some points remained indefinite and it was not stated officially who the successful bidders were for the major equipment.

#### Will Build Sawmill

The mill site is on the Everett waterfront not far removed from the main business section. It is clear of buildings except for some old remnants of the shipyard that once occupied it. Adjoining is the big lumber mill of the Clark-Nickerson Lumber Co. President A. M. Robbins of the lumber company is also a director in the new pulp company.

Between the Clark-Nickerson mill and the main pulp units the Puget Sound company will construct a new sawmill which will be used principally as a cut-up unit

for the pulp mill.

The pulp mill proper will be built in the general shape of a "U", with the open side facing the waterfront and the various units so arranged that a continuous flow from wood to finished pulp can be effected. Chips will all be made at Everett, either from round wood or from sawmill waste.

The several buildings included in the pulp mill proper will consist of a boiler plant 72x120 feet in size, installed in which will be four 850 h.p. boilers supplied by the Puget Sound Machinery Depot of Seattle. These boilers will be equipped to burn both hogged fuel and oil. Automatic continuous feed will be provided for firing the hog fuel. The steam plant will be used only to supply process steam for the pulp mill, as all electric power will be purchased.

The chipping plant will be 66x108 feet in size and will not contain any radical departures from ordinary

procedure.

The bleach liquor making plant and lime storage will occupy an area 145x34 feet. Facilities will be provided for unloading the lime rock directly from ships, scows or railroad cars onto smaller dump cars which can in turn be shunted over a trestle to a lime rock storage pile in the center of the "U" space.

The acid plant and sulphur storage will occupy an area 178x50 feet and will include the usual type of G. D. Jenssen acid towers. Sulphur will be unloaded from ship side in the same type of dump cars as used for the lime rock., these cars running on a track directly over the sulphur storage bins to dump directly into

the storage spaces below.

The blowpits and digester building will be housed in an area 123x134 feet. The blowpits will be built of concrete and lined with timber. There will be five digesters 17x56 feet in size, employing the direct cook method with some special arrangements for circulation.

#### Two Drying Machines

The Everett mill will use flat screens throughout for cleaning the stock, these to have some special design. The screen room and bleach plant will be housed in a building 108x208 feet in size.

The drying room will lead from the screen room toward the waterfront to facilitate a direct flow in pro-

duction, the finished stock passing directly through to pulp storage warehouses, 86x234 feet in size, where loading to ships or railroad cars can be handled with

facility.

The engineers have selected two fourdrinier type machines 152 inches in width for drying the pulp. The entire drying process will follow closely the most modern methods. Pulp will be dried in sheet form on cylinders and hydraulic presses will be employed for baling.

In general the building construction will follow largely the type employed by Union Bag in their new pulp mill at Tacoma where brick, steel and concrete were the essentials. A liberal amount of wood sash

will be used.

The completed plant will cost approximately \$3,500,-000 and is expected to be in operation in about one

#### California Filters at New Address

California Filters Co. has changed the Seattle address from 1005 Securities Building to 514 Fourth

## THE VICKERY FELT CONDITIONER



## -SAVES ONE MILL 20 MACHINE HOURS A MONTH

—and at the same time increases felt life about ten days.

How would 20 extra hours of production look to you? Let us put a Vickery Felt Conditioner on one of your press felts.



## BIRD MACHINE COMPANY

South Walpole

Massachusetts

New Types
New Models
New Machines

## EQUIPMENT

Manufacturers of, and dealers in, equipment used by pulp and paper mills, board manufacturers, converting plants, paper merchants, or any other branch of the industry may make their announcements in this department. New Dealers
New Branches
Appointments

Paper Makers Chemical to Build at Portland

Marking one more step in the shift of the pulp and paper industry to the Pacific Coast the Paper Makers Chemical Corporation of Kalamazoo, Mich., has let a contract to the Austin Company, national building engineering firm, for the immediate construction of the first unit of a branch plant at Portland, Oregon, which, when ultimately completed, will cost about \$300,000.....

"Realizing the enviable position of the Pacific Coast in the paper industry, and believing that this position will be enhanced in the future," company officials stated in making the announcement, "it is believed that



W. J. LAWRENCE

a branch plant on the Pacific Coast is now a necessity properly to serve the growing industry."

The plant will be erected on a seven-acre site just south of the Northern Pacific round-house in the Guilds Lake industrial district, one of two sites on which the chemical company purchased options. The building and equipment of the first unit will cost approximately \$75,000, it was reported.

The main building will be 60 by 160 feet with a second-story over part of it. Ground floor space will be occupied by offices, warehouse and factory with assembly and charging facilities on the second floor.

President W. J. Lawrence of the chemical company

President W. J. Lawrence of the chemical company was in Portland to close up the deal personally early in the month.

Paper Makers Chemical Co. was formed in 1900 at Easton, Pa., to manufacture rosin size and other chemicals for the paper industry. Demands of the industry grew and resulted in the expansion of the company into the Middle West and South as the paper industry moved into those territories with growing force. The present move to the Pacific Coast has become a necessity to serve the growing industry in this region.

Last year a complete reorganization and consolidation of a number of chemical plants was effected under the name of Paper Makers Chemical Corporation. The company has 22 plants in the United States, Canada and England. The Portland plant will be the corporation's first plant west of the Mississippi River.

The Pacific Coast trade of the corporation has been served for some years by Alex Duncan, who has been associated with the corporation for about 17 years.

#### The New Dilts Siphon Washer

Seeking to overcome some of the common faults of the cylinder washer used on beating engines, the Dilts Machine Works, Inc., of Fulton, N. Y., is now offering a new type of siphon washer for which many advantages are claimed. One of these new type machines has recently been installed in the mill of the Longview Fibre Co., at Longview, Wash.

Instead of the usual drum type of washer, made with buckets to dip up the water, and spouts over the side of the beater tub to discharge it, the new Dilts siphon washer extracts the water by a natural siphon which requires no power to operate and which removes the water much faster than it can be dipped out with the drum

bucket type.

The siphon washer's discs, which dip deeply into the stock and which are covered with wire cloth face, protect the siphon pipe from the pulp or paper stock and permit the siphoning of the water from near the bottom of the tub as freely as from the surface. One, two or three discs may be employed and thus may the capacity of the washer be correspondingly increased. Discs are driven from the outer periphery and a pulsating or vibrating motion tends to keep the wire screening surface free from accumulation of pulp. These siphon washers are simple in operation, not expensive, and they immediately appeal to the progressive paper makers in their ability to provide an improved and more tidy performance of water removal.

#### Minton Dryer Executives Visit Coast

Ogden Minton, president of the Minton Vacuum Dryer Co., Inc., accompanied by George H. Spencer, sales manager, made a visit to Pacific Coast mills in August. Mr. Minton, it will be remembered, last year was honored by TAPPI with the presentation of a medal for significant achievement in the art of paper making, his development of the Minton vacuum dryer system being hailed as one of the outstanding developments in the industry.

They report a considerable interest in the vacuum dryer on the Pacific Coast. While they did not say that any actual installations had been booked, it was reported that a number of executives were keenly interested in the new type dryer for pulp as well as paper drying.

the new type dryer for pulp as well as paper drying. "The vacuum dryer," Mr. Spencer pointed out, "entirely eliminates the factor of outside air conditions, for within the vacuum dryer there is absolute control of drying conditions thru control of temperature and humidity. The installations we have made in Eastern sections of the continent have shown impressably favorable conversion costs, and such costs, after all, are what count. The real important point to consider in purchasing equipment is not 'How much does it cost?' but 'What costs will it reduce?'"

# Announcing – A New Pacific Coast Factory

Realizing that the Pacific Coast occupies an enviable position in the Paper Industry, and believing the future will enhance this position, it is our belief that a modern factory is needed there to insure efficient service and prompt delivery of SUPERIOR ROSIN SIZE and other chemicals.

It is, therefore, a pleasure to announce that we have a chemical manufacturing plant under construction at Portland, Oregon. Practically and technically trained men will be available to assist in solving Paper Making Problems.

To Serve You Better Is Our Aim



## PAPER MAKERS CHEMICAL CORPORATION

Kalamazoo, Michigan



Illustration courtesy Powell River Digester

R. H. Scanlon (with hat on) and Jack Harper in a Western Canada Airways plane ready to look over routes for a proposed highway.

#### Powell River Air-Minded

Some day there will be an automobile highway up the scenic British Columbia coast from Vancouver north to Powell River, the paper mill city. Supporting a movement to bring this highway to realization there is no more loyal supporting organization than the Powell River Branch of the Automobile Club of British Columbia.

Trying to boost the idea along a bit, Assistant Mill Manager Robert Scanlon, accompanied by Jack Harper, climbed into an airplane recently and looked over the possible routes from the air. They confined their reconnaisance largely to the district between Half Moon Bay and Powell River, where the un-highwayed gap looms largest.

In a few hours time they were able to explore the coast. Completing their aerial survey they turned over to the B. C. Department of Public Works considerable data of value to the government in furthering the project. Mr. Scanlon reported that no serious obstacles stood in the way of construction north of Pender Harbor.

#### TAPPI Meeting

(Continued from page 37)

needs yet to thrash out, such, for example, as the amount it is going to be allowed to expend and receive reimbursement for thru a remittance of dues or otherwise from the national office. This point at present has only a temporary status and the Pacific Coast secthion is looking only to reimbursement of nominal expenses for such items as correspondence, telegrams, and printing of programs. This nominal reimbursement has already been conceded by the national office.

Chairman Cash will appoint committees at Tacoma to handle the several main points of business and with these committees reporting back the same day it appears probable that most of the present problems will be well taken care of.

Cards announcing the date and place of the meeting were sent out to all Pacific Coast members of TAPPI and also to a large number of other interested people in the first week of September. Failure to receive an announcement card is not to be interpreted that an invitation has not been extended, Chairman Cash points out. The meeting is open to all interested.

#### Powell River Donates Research Funds

The Powell River Co. is co-operating in a practical way with the University of British Columbia in furthering research into pulp and paper problems, and has presented \$5,000 to the board of governors of that institution to assist in defraying the costs of the work. The company has aided the university in the past along

the same lines, although this year the appropriation is about double the amount contributed last year.

The researches have been in bacteriology and biochemistry and have been under the general direction of Prof. Wilfred Sadler, head of the department of dairying, and associates in the faculty of agriculture. These authorities have been carrying on experimental work in collaboration with several experts representing the Powell River Co.

The fund is to be administered by Dean F. M. Clement, head of the department of agriculture. Important results are expected by officials of the university and the paper company as a result of the experiments, which are related chiefly to the usability of various woods and the improvement in quality of newsprint.

#### Sultan River Project Started

Construction has started on the \$2,000,000 water system, for which bonds were voted practically unanimously by the citizens of Everett, Wash., early this summer when it was announced that pulp and paper interests were considering locating at Everett and that their decision rested on whether or not the city was willing to supply adequate water.

During the first week in September contracts totaling approximately \$1,000,000 were let on three sections

A complete description of the project was carried in the columns of the PACIFIC PULP AND PAPER INDUSTRY'S May issue.

#### State Raises Pulp Liquor Ban at Everett

As far as the state of Washington is concerned obstacles standing in the way of a pulp mill at Everett, Washington, proposed some time ago by interests affiliated with the Crown-Zellerbach Corp., have been removed. The State Fisheries Department originally asked that restrictions be placed upon the disposal of waste sulphite liquor from the contemplated mill into the main channel of the Snohomish river. These with other restrictions at least caused a postponement of Zellerbach plans.

Upon protest from interested citizens of Everett, state officials revised their decision and are now agreeable to dumping the liquor into the river with the restriction that 500,000 gallons may be discharged at the higher of two tides daily for a period of two hours; that the waste be discharged on the bottom of this channel and that suitable filters be installed to minimize the passing of waste fibers into the stream.

po po no ly

Mill Manager J. H. Hanny of Crown Willamette's West Linn mill spent his vacation in August at Seaside for the third consecutive year.



## "LET IT SQUEAK!

## ... no oil till Sunday morning"

Sunday morning they climbed the pole and oiled the blocks. Some pulleys were screeching by Wednesday, most of them were entirely dry by Friday night.

But there was no time to shut down to stop a mere squeak—not with the mill boss yelling for timber every day.

The engineer would occasionally feel sorry for the shuddering "donkey" and soak a rag in oil, tie it on one of the lines and drag

it through a block, hoping to "wipe off enough" to do some good.

The Shell man who came along during this operation one day had a hopeful idea: Perhaps there was some oil that would "stay put" all week. There was. A regular stock Shell mill lubricant that now goes into the bearings Sunday mornings, if some one feels like putting it there. Some blocks, hard to reach, get oiled

once a month or once a season even. But the squeaking, the friction, the rapid wear is no more.

The point is that Shell men are often able to suggest a remedy that works. They are experienced in mill and woods lubricating problems and know their oils thoroughly.

They are available, without obligation, by calling the Shell depot.

#### SHELL MILL LUBRICANTS

#### Crown Willamette Names Officers

At the annual stockholders' meeting of Crown Willamette Paper Company, subsidiary of Crown Zellerbach Corporation, R. A. McDonald was elected to the directorate.

Mr. McDonald formerly was president of the Western Waxed Paper Company of California and Oregon. In addition to being a member of the directorate, he also is vice president in charge of sales of Crown Willamette products.

Other officers were reelected as follows: Louis Bloch,



R. A. McDONALD

president; A. B. Martin, executive vice president; George P. Berkey, vice president; F. G. Wight, vice president; Frank Schwabacher, vice president; A. J. Lewhthwaite, vice president; D. J. Goldsmith, secretary and assistant treasurer; Charles M. Whitney, treasurer and assistant secretary; Ludwig Frank, assistant treasurer and assistant secretary.

The directors also declared the regular quarterly dividend of \$1.75 a share on the first preferred stock, payable October 1, 1929, to holders of record September 13, 1929. Regular quarterly dividend of \$1.50 a share was also declared on the second preferred, payable October 1, 1929, to stockholders of record September 13.

#### I. P. Assets Now \$649,365,000

Total assets of International Paper & Power Co. and subsidiary companies as of June 30 were \$649,365,000. Of this, \$548,208,000 was in fixed assets, \$353,158,000 represented by electric power and utility properties, and \$195,050,000 by paper and pulp properties.

The rapid growth of the company is shown by the fact that the present assets are over six times the \$102,-102,000 in assets of International Paper Co. and subsidiaries on December 31, 1924, practically all of which was represented by paper and pulp properties. In the four and one-half years which have elapsed, the expansion program now nearing completion has resulted not only in strengthening the company's position as a maker of paper and pulp, but also in raising it to the position of one of the leading producers of electric energy on the Continent.

Four kraft pulp and paper mills in southern United States have been constructed and purchased, and another will soon be in operation; a newsprint paper mill has been built in Quebec, another in the same province has been doubled, a third has been acquired in Newfoundland, and a fourth is nearing completion in the Province of New Brunswick; 20 hydro-electric plants in Canada have been built or purchased; and control of

New England Power Association has been acquired, giving the company a total hydro-electric capacity installed or in course of construction of over 1,200,000 horsepower, and a steam-electric capacity of 477,500 horsepower.

Production of paper and pulp rose from 434,000 tons in 1924 to 1,173,000 tons in 1928, an increase of 170 percent, while production of electric energy, which was approximately 250,000,000 kilowatt hours in 1924, is now running at the rate of about 4,500,000,000 kilowatt hours a year, or 18 times its rate five years ago.

#### Umpqua Mill Increases Capitalization

The Umpqua Pulp & Paper Co. last month increased its capital structure from \$1,500,000 to \$2,500,000 and 20,000 no par shares to 25,000 no par shares.

The project has a chief backer in W. L. Nederhoed of Portland, who has announced previously that the company proposes to build a 100-ton sulphite pulp mill

at Gardiner, Ore.

Mr. Nederhoed states that the Gardiner Mill & Lumber Co., of which he is vice-president, will renew lumber production within three months and that one of the first jobs will be the cutting of timbers for construction of the contemplated pulp mill. Joe Kaster, Sr., well known in paper manufacturing circles on the Coast, is to be in charge of the pulp mill construction.

Other details of the Umpqua project were published in the August and previous issues of PACIFIC PULP

& PAPER INDUSTRY.

#### B. C. Lumber Firm Makes Chips

Marking another step toward complete utilization of wood waste, the Wood-English mills at Englewood, northern Vancouver Island, has installed a chipping plant at a cost \$75,000 to manufacture pulp chips which will be delivered to Port Angeles, Wash.

Four large scows have been built at Prince Rupert and two more have been purchased in Vancouver for the purpose of maintaining a regular service between Englewood and Port Angeles for handling the chips. The scows are 40 x 110 feet, and each will carry 70,000 cubic feet of chips.

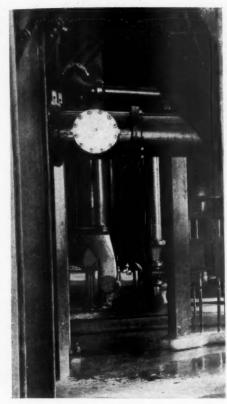
The chipping plant will be operated by hydro-electric

power:

Englewood is close to the Nimpkish River, where the Canadian Forest Products, Ltd., recently obtained authority to make use of waterpower available there for the establishment of a 500-ton pulp and paper mill. It is in the center of an important logging district, although in the past most of the logs have been sold to sawmills and little or no attention has been given to the valuable resources in pulpwood. The chipping plant and selling arrangement with Port Angeles will enable the Wood-English Co. to turn into profitable account a large amount of material which in the past has been wasted.

#### Carl Braun Makes Changes

Effective August 31, Carl E. Braun resigned as general superintendent of mills of the Columbia River Paper Co., of which F. W. Leadbetter is president. He has made a new connection with Ossian Anderson at the Puget Sound Pulp & Timber Co's new 175-ton bleached sulphite pulp mill on which construction has started at Everett, Wash. Mr. Braun was associated with the Leadbetter interests for several years and prior to that time was identified with the Crown Willamette Paper Co.



Hayton Combination Type Agitator and Pump handling kraft stock in the mill of the Union Bag & Paper Power Corporation at Tacoma, Washington

## **UNION BAG**

AGITATES KRAFT STOCK

THE

HAYTON WAY

In Their New Kraft Pulp Mill at Tacoma

The Hayton System of Stock Agitation and Pumping with the same unit is adaptable to sulphite, soda, and groundwood as well as kraft stock.

For certain conditions it is desirable to agitate the stock in a chest and at the same time divert part of the stock in constant quantities without variation in quantity.

For heads up to 50 feet serving a machine, the combination agitator and Class B1 pump is recommended. Each chest and machine requires special design.

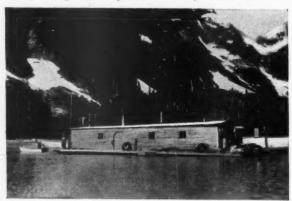
Ask us more about it

THE HAYTON PUMP & BLOWER CO.

APPLETON, WISCONSIN

#### Alaska Aerial Survey Discovers Power Site

A power site of more than 20,000 horsepower has been discovered in the Tongass National Forest, south-eastern Alaska, by the Alaska Aerial Survey Expedition now working in that region, according to information telegraphed to the Forest Service, United States Department of Agriculture in Washington. The aerial survey is expected to prove extremely valuable in con-



HOW ALASKA TIMBER IS CRUISED

Pictured herewith is one of the houseboats used by the Cameron and Zellerbach interests in studying the pulpwood and waterpower resources in Southeastern Alaska prior to the establishment of big paper mills. The floating camp is moved about by means of an outboard motor.

nection with power development for the manufacture of wood pulp on the Tongass forest. The power site, just discovered, is on the east side of Taku Inlet near Greely Point.

Lakes, streams, and other important topographic features of the Tongass forest, the existence of which hitherto has not been known, have been revealed by the

survey of the forest from the air.

Before the aerial survey expedition began its work none of the greater part of the land surface of southeastern Alaska had ever been surveyed. The shore lines of the islands and the mainland had been delineated, but farther inland the maps were largely blank, even within one mile of tidewater. In 1926 a total of 10,000 square miles was mapped. The work was continued during the past summer. It is anticipated that an equal area will be covered in 1929, and this will complete the work to be done in this region.

Camas Program Moving Along

Rumors that the Crown Willamette Paper Co. planned to make book paper following the completion of their extensive improvement and expansion program now under way at the Camas, Wash., mill were discounted by President Louis Bloch in the following statement to PACIFIC PULP & PAPER INDUSTRY:

"The Crown Willamette Paper Co. does not contem-

plate making book paper at any of its mills."

It appears probable, however, that some rotogravure

paper may be made at Camas later on.

The present program includes an addition of three new machines, one of the Yankee type, and the rebuilding of four others, giving a total of 11 machines finally.

The main point of improvement is in the bleach plant where the bleaching capacity is being stepped up from 30 tons to about 100. In other words the Camas plant has been bleaching only for small necessary requirements, whereas it now intends to make more of a spe-

cialty of bleaching and in general move into the field of higher grade products. News and wrapping have made up the bulk of its output heretofore.

A Port of Portland dredge is at work deepening a channel and filling in a tract, thus providing some new

building area.

The general contractors have several hundred men on the job at excavation work and concrete pouring.

New units included in the expansion program include, in addition to the bleach plant mentioned, a new wood room, converting plant, boiler house, warehouse and machine room. The chipping plant is being removed to the rear of the kraft mill. There is also some talk of a new wood mill at Longview, but this has no confirmation.

#### New Westminster Announces Rebuilding Plans

The Westminster Paper Co. has completed arrangements and will rebuild immediately their mill at New Westminster, B. C., which recently was destroyed by fire. The machine room will be built larger and with ample space for accommodating two paper machines.

The first unit will be completed by January 1. This unit will take care of all the old customers of the com-

pany

The new program includes the addition of many new lines. Both machine finished papers and machine glazed papers will be manufactured whereas the old concern only offered machine glazed papers. A large printing press for three-colored work will be installed and waxing machines will again be included in the program along with the napkin, toilet paper and towel line formerly made.

Papers with special water marks are also included in the program. Also, marked wrapping papers will be featured for the different large users. The second unit will be started as soon as the first one is in full operation. The second unit will consist of book, bond and parchment equipment. Both machines will be 132

inches wide.

The plans are practically completed for the entire program. Tenders will be called for in the near future and the company expects to have the book machine in operation early in 1931. In other words, they are going to rebuild on a much larger scale than formerly and all haste will be made in carrying out the program.

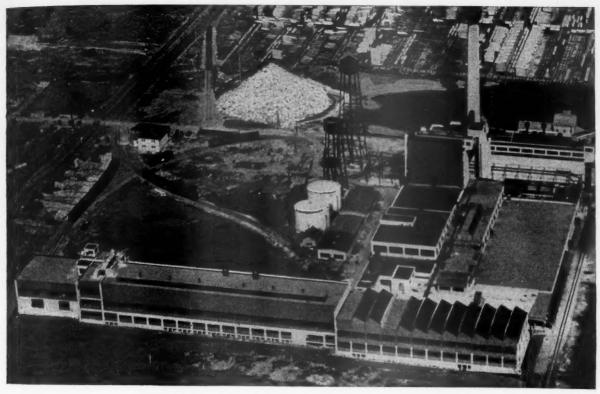
#### Santiam Dam Project Started

To provide an adequate water supply for the Lebanon, Ore., plant of the Crown Willamette Paper Co., and the towns of Albany and Oregon, construction on a dam across the South Santiam River at the intake of the Albany and Santiam canal was started last month. The paper company has a crew of men on the job and is also bearing a part of the expense.

The old dam went out about a year and a half ago during high water, and since that time the Albany supply of water has been taken from the Lebanon-Santiam canal. This does not give sufficient water for the Crown Willamette Paper Company's use.

#### St. Helens Adds More Beaters

President Max Oberdorfer of the St. Helens Pulp & Paper Co., at St. Helens, Oregon, has announced that construction is under way for moderate improvements to the mill. The beater room is being enlarged for the addition of four more beaters and a new unit is also to be added to the recovery plant. The mill has a daily capacity of 60 tons of kraft pulp and paper.



Grays Harbor Pulp & Paper Co.-Hoquiam, Washington

## KUPPLER'S HAVE HAD EXPERIENCE CONSTRUCTING PULP AND PAPER MILLS

Most important to the success of the job is experience on the part of the contractor in the specialized type of construction required by pulp and paper mills.

CHRIS KUPPLER'S SONS with their valuable experience gained in building these mills are well qualified to handle all phases of pulp and paper mill construction.

GRAYS HARBOR PULP & PAPER COFPANY
RAINIER PULP & PAPER COMPANY
WASHINGTON PULP & PAPER CORPORATION
NATIONAL PAPER PRODUCTS COMPANY
(Second Unit)

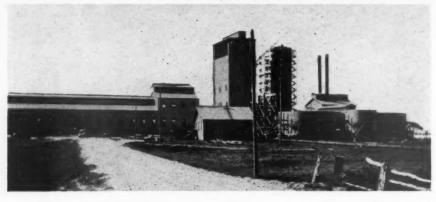
O. A. KUPPLER W. R. KUPPLER G.W. KUPPLER H. B. KUPPLER

# CHRIS KUPPLER'S SONS

SPECIALIZING IN PULP & PAPER MILL CONSTRUCTION

**GENERAL BUILDING CONTRACTORS** 

Established 1889
General Offices: PORT ANGELES, WASH.



A recent photo

SITKA SPRUCE PULP & PAPER COMPANY'S

pulp mill now building at Empire, Oregon

#### **Empire Pulp Mill Nearing Completion**

Latest reports from the Sitka Spruce Pulp & Paper Co., which is constructing a 75-ton sulphite pulp mill at Empire, Oregon, indicate that construction is moving along but that it will be perhaps late in October before actual production is under way.

This first pulp mill in the timbered country of the Oregon Coast is being built for C. McC. Johnson and associates by J. B. Wilt. A spruce sawmill will operate

in connection and serve as a cut-up plant.

Jennsen acid towers, Willamette digesters and a 96inch Black Clawson dryer comprise principal units of the mill. A General Electric steam turbine will drive the dryer, diverting its exhaust to process purposes.

The company controls sufficient timber to last for 20 years and as the holdings are said to be 95 percent Sitka spruce, the plant will be unique in operating solely

upon this high grade pulp wood.

#### Work Started On New Port Angeles Mill

The Olympic Forest Products Co. has figuratively rolled up its sleeves and set to work building the first unit of what will ultimately be a 500- to 600-ton sulphite pulp mill at Port Angeles, Wash.

At this writing the piling contractors are at work driving thousands of piles for the building foundations and huge dock, the latter to be large enough to accom-

modate two ocean vessels at once.

Work has also started on the sawmill unit and the buildings of the war-time spruce mill are being remodeled into structures suitable for modern requirements. The docks will be large enough to serve the needs of the lumber mill and pulp mill both at the start, although it may be necessary to add to the pulp mill dock later.

Executive and engineering offices have been weighty with conferences in the past few weeks and even at this writing PACIFIC PULP & PAPER INUSTRY is officially informed that not all details have been settled.

E. M. Mills, holder of many offices in the Crown Zellerbach group and moving figure in the new Port Angeles mill, left for Chicago and other Eastern points the second week of September where further conferences are in order. He was preceded to Chicago by O. C. Schoenwerk, who for the past two years or so has directed affairs of several affiliated mills in the Puget Sound and Grays Harbor regions of Washington. It is probable that while Mr. Schoenwerk is East that he will look over a number of mills.

A model of the proposed Port Angeles mill has been constructed and this model has gone to Chicago and will be the center of lively discussions at scheduled

conferences.

Other than the pile-driving, dredging and remodeling of the war-time buildings little work has been definitely placed on the work sheet. The details await the outcome of the Chicago conferences and then the program will be "full speed ahead." Most contracts on construction and equipment are still in abeyance, it is said.

As stated in previous issues of PACIFIC PULP & PAPER INDUSTRY the Port Angeles mill will combine a sawmill and pulp mill and possibly an insulating board mill and other wood-using industries. Completed, it will have from 10 to 12 digesters, but for the present only a 150-ton unit will be constructed.

At the same time the City of Port Angeles is preparing to build a 44-inch pipe line to supply the mill with 20,000,000 gallons of water daily from the Elwha river.

It is expected that following the visit of the executives of the Olympic Forest Products Co. to the East that the name of an important paper company will be announced as a principal purchaser of the Port Angeles output. It has been intimated that the contract extends over a long period of years and that it involves several hundred thousand tons in all, being perhaps one of the largest contracts of the kind ever entered into.

Speculation on this Eastern tie-up is already arousing much interest in the paper circles, marking, as it does, one more shift of the industry to a new source of supply,

the Pacific Coast.

#### Gibbs Asks More Workmen's Homes

Port Angeles must get busy and build many new and modern homes to accommodate the new army of 450 workmen that will be employed in the pulp and saw mills of the Olympic Forest Products Co., soon to be built, says Norman Gibbs, resident manager of the Washington Pulp & Paper Corp. "In plain words," says Mr. Gibbs, "Port Angeles faces an acute house shortage."

#### O'Neill Bros. & Callahan Seek Power Rights

Considerable interest is being taken in a hearing scheduled for the state engineer's office at Salem, Oregon, on September 24, at which O'Neill Bros. & Callahan of San Francisco will set forth reasons for seeking rights to develop a power project on the north Santiam river.

O'Neill Bros. & Callahan formerly controlled the paper mill at Lebanon, Oregon, which they later disposed of to the Crown Willamette Paper Co. More recently they operated a small mill at Soquel, near San Francisco, for the production of sheathing papers.

R. E. LeGrant of Taverner and Fricke, Los Angeles, and wife are on a vacation trip to Zion Park, Utah.

5

838 h.p. High Pressure Boilers: Vertical, 4 drum Bent-tube type operating at 386 pound pressure.

3

Digesters: 19 ft. diameter, 58 ft. high riveted steel plate.

Furnished and Installed for

Grays Harbor Pulp & Paper Co.

**HOQUIAM** 

by

**Puget Sound Machinery Depot** 

Established 1887

322-324 FIRST AVENUE SOUTH SEATTLE

P.S.M.D.

#### STATEMENT OF ACCIDENT EXPERIENCE—JULY, 1929

COMPANY—	Hours Worked	Total Accidents	Frequency Rate	Days Lost	Severity Rate	Standing
Cascade Paper Co., Tacoma	44,680	0	0	0	0	1
Pacific Straw Paper & Board Co., Longview	15,312	0	0	0	0	2
Inland Empire Paper Co., Millwood	67,734	0	0	13	.192	3
Everett Pulp & Paper Co., Everett	74,125	0	0	29	.391	4
Fibreboard Products Inc., Port Angeles	55,120	1	18.1	11	.199	5
Crown Willamette Paper Co. Camas	273,064	9	32.9	83	.304	6
Fidalgo Pulp Mfg. Co., Anacortes	24,184	1	41.3	30	1.240	7
Washington Pulp & Paper Corp., Port Angeles	104,214	5	48.0	27	.259	8
National Paper Products Co., Port Townsend	66,990	4	59.7	73	1.090	9 -
Longview Fibre Co., Longview	94,403	9	95.3	189	2.002	10
Tumwater Paper Mills Co., Tumwater	19,961	2	100.2	6	.301	11
San Juan Pulp Mfg. Co., Bellingham	32,680	4	122.4	33	1.009	12

Following mills not reporting: Columbia River Paper Co., Vancouver, Wn.; Rainier Pulp & Paper Co., Shelton, Wn.; Pacific Coast Paper Mills, Bellingham, Wn.; Grays Harbor Pulp & Paper Co., Hoquiam, Wn.

#### U. S. Paper Exports Show Increase

Exports of paper and paper products from the United States during the first half of 1929 were valued at \$18,-892,239, an increase of 21 percent over the preceding six months and of 23 percent over the corresponding six months of 1928, according to the Paper Division,

Department of Commerce.

Most classes on the paper schedule shared in this increase, reductions being registered only in a few products, such as cover, blotting, tissue and crepe, and greaseproof papers, paper hangings, and manufactures of indurated and vulcanized fiber. An important element in the increase of the 1929 shipments was the transfer of over-issue newspapers from the schedule covering paper base stocks to the paper schedule. This one class alone accounted for an increase of nearly \$1,000,000 in the 1929 exports. Of course, this change also involved a corresponding decrease in shipments entered under the classification "rags and other paper stocks."

#### Shipments of Overissue Newspapers From Pacific Coast Customs Districts, June, 1927

Country of Destination—	Pounds	Dollars
China	4,937,120	\$48,498
Oceania	1,569,533	18,265
Japan	309,960	3,832
Orient	3,637,109	36,859
Total	.10,553,722	\$107,544
From San Francisco		
Central America	39,000	691
China	525,000	5,200
Japan	182 160	1,525
Philippines	109,960	1,119
Oceania	624,500	7,005
Total	1,451,620	15,540
From Washington	-,,	
Canada	6.019	239
China	89,600	660
Total	95,619	899
Total Coast Shipment	12,100,961	123,983

#### Sale of Colorado Firm Consumated

The Colorado Pulp & Paper Co. has been sold finally after long litigation and many previous attempts at sale. On August 9 District Judge Samuel W. Johnson signed an order confirming the sale to Max Bronstine and I. Rude for \$228,000, a bid made at a sale in May. Creditors of the firm, which has been under a receivership since the summer of 1927, protested the transfer, but Judge Johnson confirmed the sale after several hearings. Appeal to the state supreme court on a writ of error was pending at the time and has not since been heard. The new owners took over the title to the firm on August 9, although operation will continue under the receivership of George W. Beck at least until the bonded indebtedness is paid.

#### May Build Board Mill at Newberg

A change in location plans for the Western Board Products Company's mill calls for erection of the plant on property occupied by the Spaulding Pulp & Paper Co., at Newberg, Ore., instead of at Salem, as announced in these columns last month. The new site would give direct access to sulphite screenings from the Spaulding mill which are to be used in making the company's product, binder board, it was declared.

#### Little Change in Willapa Progress

Completion of an additional spur track between the sites to be occupied by the two projected pulp buildings for the Willapa Pulp & Paper Mills between Raymond and South Bend, Wash., was another step taken in preliminary construction work last month.

Aside from a late decision to install a cylinder drying machine instead of air drying equipment, plans for the general set-up remain unchanged. Construction plans call for steel frame and hollow tile walls, with foundations and floors of concrete.

Inland Empire Co. Re-elects Trustees

Stockholders of the Inland Empire Paper Co. at their annual meeting in August at Millwood, Wash., re-elected the old board of trustees for another year. They are Judson G. Rosebush, Appleton, Wis.; L. M. Alexander, Port Edwards, Wis.; Waldo Rosebush, William A. Brazeau, W. H. Cowles, and W. H. Cowles Jr., all of Spokane. Reports of officers were read and approved on the progress of the business of the year.

#### Indian Timber Bids Rejected

All bids submitted for Indian timber in the Quinault reservation were rejected last month by government officials. The bids had been forwarded to Washton, D. C., and reservation officials at Hoquiam could

report no reason for the bid rejection.

The timber had been divided into four units, each unit being bid upon by the operator in the particular unit. The Joe Creek unit was bid upon by the Hobi Timber Co., the Raft river unit by the Aloha Lumber Co., the Elizabeth unit by the M. R. Smith Lumber Co., and the Lunch creek unit by the Polson Railway Co.

Sale of the timber had been protested by the Aberdeen Chamber of Commerce.

#### Strawboard Mill Will Make Groundwood

The Pacific Straw Paper & Board Co. at Longview, Wash., is planning the addition of a groundwood mill in the early future. Work will start in about 60 days. Other improvements include a number of wells with filter equipment to improve the water supply.

# PERKINS-GOODWIN COMPANY

Established 1846

551 FIFTH AVENUE, NEW YORK

AGENTS FOR

-:-

## PULP-PAPER MILLS

**SOLE SELLING-AGENTS** 

FOR

SPAULDING PULP & PAPER CO.

**NEWBERG, OREGON** 

### IMPORTS OF PULP WOOD AND WOOD PULP INTO THE UNITED STATES BY COUNTRIES MAY, 1929

Compiled by the U. S. Department of Commerce Bureau of Foreign and Domestic Commerce (Figures Subject to Revision.)

		Ro	ngh-		PULI	WOOD	led-			Pa-	ssed	
	Cords	Dollars		ther Dollars	Cords		Cords	Dollars	Cords	ruce Dollars		ther
COUNTRIES Canada	18,613	195,352	2,253	20,280	34,811	382,834	11,697	92,689	715	8,040	******	
Total	18,613	195,352	2,253	20,280	34,811	382,834	11,697	92,689	715	8,040		

			wo	DOD PUL	P						
	nanically round Dollars	Un	Chemical ibleached ulphite Dollars	Chemica Sulp Tons			Inbleached bhate Dollars		al Bleached phate Dollars		Other od Pulp Dollar
COUNTRIES—											
Austria Czechoslovakia	******	******	********	200 325	13,469 22,457	40	3,009	****	******	*******	******
Finland 1,499	37,624	8,261	400,121	150	9,766		125,424	472	31,406	***	*****
France				ini	474 740		*******	******	*****	55	15,69
Germany	685	2,444	147,107	6,246	476,758			****		32	2,78
Lithuania Netherlands	*******	2,079	109,963	*******	********	524	8,432 28,530	Access to	*******	******	******
Norway 390	5,286	1.775	102,936	3,141	198,195	1,464	72,071	200	10,325	*******	******
Poland & Danzig	********			*********	*********	159	7.308		********		No.
Sweden Yugoslavia & Albania		15,585	803,844	5,030 485	376,694 20,632		460,920	****	*****	*******	******
Canada 16 875	394,905	19,234	936,428	16,304	1,249,177	. 9,407	596,043	239	21,537	416	31,55
Algeria & Tunisia		19,234	770,720	10,304	1,447,1//		770,043		21,737	2,000	41,85
Total18,789	438,500	50,116	2,529,739	31,881	2,367,148	23,508	1,301,737	911	63,268	2,503	91,89

Pacific Coast Wood Pulp Exports

During the month of June, 1929, Washington exported 1,294 tons of Sulphite wood pulp, valued at \$60,199. No other grades were exported. No shipments were sent through other Pacific Coast customs districts. Washington's pulp shipment was as follows:

From Washington

		T. I.	OIII	w asimigton			
To	France				276	tons	\$15,000
To	Italy .				118	tons	4,627
To	United	Kingdom			900	tons	40,572

#### U. S. Paper and Pulp Production June, 1929

The total paper production in June, according to identical mill reports to the American Paper and Pulp Association, was 557,887 tons as compared with 605,209 tons in May, and 536,913 tons in June, 1928.

All grades excepting newsprint, wrapping and hanging registered increases in monthly production over last year. Felts and building showed an increase of 10% over June, 1928 production, while uncoated book increased almost 9%, paperboard 7%, writing 7%, bag 2%, and tissue less than 1%. The following grades registered production decreases in June, 1929, as against June, 1928: newsprint 5%, wrapping 3.5%, and hanging 5.4%. Shipments in June, 1929, of all grades, excepting newsprint, wrapping and hanging, increased over June, 1928. The total shipments of all grades

All grades, excepting paperboard, wrapping, writing, tissue, hanging and felts and building, registered decreases in inventory at the end of June, as compared with May, 1929. As compared with June, 1928, all grades excepting paperboard and hanging showed substantial decreases in inventory. The total stock on hand for all grades increased 1% over May, 1929, but was 9% lower than that of June, 1928.

increased 5% above the total for June of last year.

Identical pulp mill reports for June, 1929, showed that the total production of all grades of pulp was about 6% greater than June, 1928. There was 11% more sulphate consumed in June, 1929, at the reporting mills

than in June, 1928. All grades, excepting news grade sulphite, registered decreases in outside shipments as compared with June, 1928.

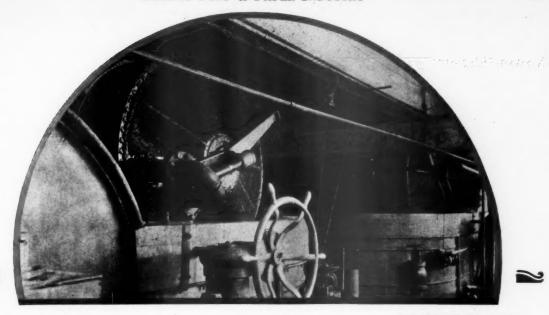
All grades excepting groundwood, sulphate and soda pulp, showed decreases in inventory at the end of June as compared with May, 1929. As compared with June, 1928, all grades excepting groundwood, bleached sulphite, easy bleaching sulphite and soda pulp, registered decreases in inventory.

REPORT OF PAPER OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF JUNE, 1929

GRADE	Production	Shipments Tons	Stocks on Hand End of Month—
Newsprint	113,407	114,558	24,602
Book, Uncoated	84,482	85,016	38,143
Paperboard	213,885	210,547	64,994
Wrapping	49,720	49,104	50,383
Bag	14,577	15,014	5,848
Writing	30,810	30,304	40,082
Tissue	12,295	11,993	10,340
Hanging B. III	4,260	3,553	4,627
Felts and Building Other Grades	7,384	7,251	1,392
	27,067	27,253	16,712
Total—All Grades	557,887	554,593	257,123

REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF JUNE, 1929

GRADE	Production	Used During Month—Tons	Shipped During month—Tons	Stocks on Hand End of Month— Tons
Groundwood	92,895	86,721	2,114	120,386
Sulphite News Grade		35,009	3,579	7,125
Sulphite Bleached	24,270	22,308	2,008	2,757
Sulphite Easy Bleaching	3,228	3.183	113	488
Sulphite Mitscherlich		5.864	1.071	620
Sulphate Pulp	29,928	23,908	5,260	4,546
Soda Pulp	25 222	16,128	8,356	4.718
Pulp-Other Grades	36		75	9
Total-All Grades	220,691	193,121	22,576	140,649



# Take a Look! at these DILTS SIPHON WASHERS

Operate on a new principle. Dirty water is removed by siphon action. There are no buckets or dippers, no gears or sloppy discharge spouts, no power used in lifting the water. A friction clutch pulley is used for starting and stopping. The narrow cone shaped discs permit submerging the washer discs close to the bottom of the tub so that the stock in the bottom is washed as well as the stock near the surface. The large area of the discs provides greater screening surface in contact with the stock. The rate of washing may be varied at will.

The power required to operate is negligible. Built in single, double or triple discs these washers solve many washing problems, increase production on stocks which are slow to wash and present no operating difficulties. They are simple in construction. Brass and bronze discharge outlet parts and the absence of wrought iron and steel in the construction of the washer eliminate many troubles from corrosion, lime deposits, etc.

Used in connection with New Type beating engines very satisfactory savings of time, power and beater room costs are effected. Reduce beating time, improve quality, save floor space and labor by installing this modern equipment.

Full information gladly furnished on request.

## DILTS MACHINE WORKS, Inc.

"Your Paper is Made in Your Beaters"

#### PACIFIC COAST PAPER EXPORTS—JUNE, 1929

	New Pounds	sprint Dollars	Prin	ting Dollars		iting		seproof	Wrap		Tiss	
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollar
rom LOS ANGELES-												
To Mexico	********	*****	140	85	106	26			4.106	169	3,386	39
To Australia		*********	162	7					3,567	270	2,200	
To Central America		*******		********	640	174			21207		653	7
rom SAN FRANCISCO-	_		********		0.10	***			********		0//	,
To Central America.	139,984	4 577	£ 400	210	42 746					0.000		
P97 A . 51		4,577	6,482	310	11,746	712		****	48,159	2,022	1,597	1:
PP 63 1	19,023	972		4000	*********	******					252	3
To Canada		*******	3,437	609	413	41		****	******		100	
To Mexico	**********	Williams, water	48,504	2,583	6	3				******	351	
To Venezuela	**********		5,315	413	******	******			honoscou	*******	*******	drawn.
To Philippines			1,500	186	477	83	*****		53,296	2,347	2,795	2
To Chile	*********		*****	*****	******	*******	******		3,662	240	********	****
To Colombia			*****	*******		*******		****	1.751	166	74	
To Orient	***********		***	*******		********			150	29	200	
To China			4040	*******	168	62		****	119.390	5,300	8.840	6
To Oceania		********	*******		143	36			834	77	833	
To Japan		*********	*******					4			430	1
rom OREGON—			*******	*******	******	*******	******	****	*****	******	420	
OF CR 18												
To Chile	105	4	*****	******	*******	********		****	233	12	*****	
To China	329,024	11,439	******	******	88,739	4,500				*******	*****	***
To Philippines	533,493	19,598			47,514	2,474			43,777	2,270		
To Australia	119,609	6,050	******	- Contract of	179,335	8,753			********	*******		
To Europe	*******	********	*******	*******	4,757	253	44.00			*******	*******	-
To Japan	*********	********	*******	*******	9,937	467	*****	4118		*******	********	***
rom WASHINGTON-												
PRO THE LEY Y	301,514	10,197	01 402	5.022	4 116	402			2 000	215		
To Canada			91,493	5,022	4,116	482	0.01		2.090	315	22.006	
	*********	***********	39,779	3,257	2,827	551	121	55	4,511	403	22,086	2,1
	Andread Colombia	******	310	125	970	793	*****	-	*****	*****		***
	*********		288,847	17,330	*******	*****	15	3	****	****	500	
To Australia	*********		19,692	1,128	9,155	500	****	****	****	****	******	
To Russia	**********		2,233	481	14	5	****		2,143	99	40	
Pacific Coast Total	1.442.752	52,837	507,894	31,411	361,063	19,915	136	58	287,669	13,719	47,185	4,0

	E	Board	Bui	lding	Boxes &	Cartons	Pap	er Bags		ted Paper	Miscellaneous Paper & Prod.
	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	Pounds	Dollars	
From LOS ANGELES-											
To Mexico	175	9	2.189	184			100	14	165	146	785
To Chile		*********	4,000	540							
To Peru	***********		5,000	650		*******	*****	****	******	********	Mark and
To Australia		*****	57,636	1.110				******	******	******	1,091
To Oceania	******	*******	77,030	1,110	******	******	******	*****	******	******	126
To Central America		MERCHANA	*******	*****	******	*****		****			
				*******		*	-	******	*****	****	20
From SAN FRANCISCO-											
To Canada	3,126	449			720	50	********	*******	685	445	2,261
To Mexico	2.000	81	535	385		*******	******		37	74	518
To Central America	14,624	1.098	340	25	*********		54,222	3,408	1,443	1.097	53
To Argentina	463	28	45,000	1,746	*********	********	, ,,===	21100	.,	2,027	
To China	2,904,343	63,898	35,400	931	9.817	1,159	761	66	20	12	1,272
To Orient		10,860	108,950	3,485					758	205	
To Philippines	12,174	1,066	400	40	********		44 500	2.045	3,513	495	1,207
To Australia	234,677	7.631			B-0 - 0 0 0 0 0 0	(0.0 mm) mm Aug	44,580	2,845			
To Peru	234,077		209,785	6,029	***		10.044	1 1 60	168	108	15,062
To Chile	2,555	386	**********	-	ARRESTA	***	19,944	1,168	****	*******	******
	********	*****	10,000	312	******	******	1,088	50		-	-
To South America	**********	******	10,000	334		MATERIA DE	2,973	153	*****	6000000	*******
To Japan			26,000	782	7,379	762			1,247	307	1,014
To Oceania			51,000	1,470			13,732	982	141	39	155
To Africa	***********		9,600	588	********	********	****	*******	******	*******	*******
To Europe	*********	********	*******	******	65	5	********		*****	*******	548
To Colombia	***********	*******	***********	********	*******		2,908	172	387	341	********
To Venezuela		*******	*******	*******	******	*******			109	38	1
From OREGON-				********	*******						
	212 222										
To Australia	218,382	7,207	******	Section and the	***	****	******	*****	******	M(M) = M(1) + M(M)	****
To Peru	*********	******	*******	*******		*********	80,052	4,782	*******	*******	******
To South America	***********	********	*******	Manager	*****	*******	3,350	201	*******	******	*
To Philippines	**********		*******		*********	********	38,853	1,958	1,094	66	Westernan
To Europe		******	******	*******	152	36	********	*********	*********	*********	******
To China	*********		*********	*******	********		*********	*********	1,038	57	********
From WASHINGTON-									-,		
	277 002				40 700			010	0 800		0.070
To Canada	277,803	8,775			49,703	2,218	1,196	219	2,728	751	9,258
To China	**********	*******	*******	4	******				419	89	938
To Japan	**********	*******	******	*******	******		*******	****	14,292	1,256	33
To Philippines	**********	******		******	*******		******	******	****	******	105
To Oceania			*******	******	*******					****	41
To Russia	***********	*****	*******	*******	*****				*****	****	148
Pacific Coast Total	4,159,995	101,488	575,835	18,611	67,836	4,230	263,759	16,018	28,244	5,526	34,636

CLASSIFICATIONS—For convenience of presentation, some classifications have been combined, as follows: "printing," includes book (not coated), cover and surface coated paper; "greaseproof" includes water-proof; "insuese" includes crepe, tissue, paper towels, napkins and toiler; "board" includes boxboard, bristol, bristolboard and other paper board and strawboard; "building" includes sheathing, and other building paper; "writing" includes fancy papeteries and other writing; "converted paper products" includes envelopes, cash register rolls, index file and other office

forms; "miscellaneous" includes blotters, paper hangings, vulcanized fibre sheets, strips, rods and tubes, manufactures of vulcanized fibre and other paper products. COUNTRIES—Under the classification "Central America" are included all of the Central America countries and Cuba. "South America" includes only the following South American countries: Ecuador, Paraguay, Bolivis, Uraguay, and the Guiannas; other South American countries are classified separately. "Orient" includes all the Asiatic countries with the exception of China and Japan, which are separately classified. New Zealand is included under "Australia."

Accurate Equipment for Testing the Moisture of Your Pulp Will Save You Thousands of Dollars

# THE WILLIAMS STANDARD PULP TESTING OUTFIT

Conforms in every detail with the Official Method for the Sampling and Testing of Pulp as approved by the Technical Association of the American Pulp and Paper Industry, the Canadian Pulp and Paper Industry, the American Woodpulp Importers Association, etc.



New Horizontal Model
Work-Table Top, Separate Compartments, Quicker Drying

#### **FEATURES**

OVEN—Double walled, electrically heated, with thermostat control.

SAMPLE TRAYS—Removable for weighing hot samples while covered.

THERMOMETERS—High grade six-inch dial form, one in each compartment.

SCALES—Accurate balances with brass weights, counterpoised tray holder and cover.

It will pay you to write today

THE WILLIAMS APPARATUS CO., Park Place, Watertown, N.Y.

#### Canadian Exports of Pulp and Paper July, 1929

Canadian exports of pulp and paper in July were valued at \$15,384,331, according to the report issued by the Canadian Pulp and Paper Association. This was a decline of \$1,904,525 from the June total and showed a gain of \$262,169 over the total for July, 1928.

Wood-pulp exports for the month were valued at \$3,127,292 and exports of paper at \$12,257,039, as compared with \$3,896,754 and \$11,225,408, respectively, in

July, 1928.

For the various grades of pulp and paper exports for the past month and for July, 1928, were as follows:

	July	, 1929	July	, 1928
PULP— T	ons	Dollars	Tons	Dollars
Mechanical	.579	435,989	17,006	478,337
Sulphite Bleached16	479	1,270,063	23,557	1,732,910
Sulphite Unbleached 15	.589	763,710	16,719	823,397
Sulphate 10	314	602,891	13,934	821,670
Screenings2	,734	54,639	1,877	40,440
PAPER—	,695	3,127,292	73,093	3,896,754
Newsprint199	602	11,795,510	167,456	10.765.033
	.013	108,330	1.341	147,938
	.956	51,030	4.907	45,913
Writing (cwts.)	20	743	1,101	10,330
All Other		301,426		256,194
_		12,257,039		11,225,408

For the first seven months of the year exports of pulp and paper were valued at \$112,584,311, as compared with a total of \$109,226,243 in the corresponding seven months of 1928, an increase for this year of \$3,358,068.

Wood-pulp exports for the seven months amounted to \$24,597,797 and exports of paper to \$87,986,514, as compared with \$26,236,634 and \$82,989,609, respectively, in the same period for 1928.

Details for the various grades of pulp and paper exported in the seven months' period are as follows:

	Seven M	Ionths 1929	Seven N	Months 1928
PULP—	Tons	Dollars	Tons	Dollars
Mechanical1	08,832	2,967,472	103,927	2,827,380
Sulphite Bleached1	47,792	11,278,588	147,420	11.070.136
Sulphite Unbleached1		5,309,838	125,396	6,333,246
Sulphate	78,988	4.691.636	95,544	5,659,481
Screenings	19,445	350,263	17,077	346,391
PAPER—	62,118	24,597,797	489,364	26,236,634
Newsprint1,4	09.993	84,414,737	1.232.836	79,469,925
Wrapping	8,728	943,453	9,371	1,026,819
Book (cwts.)	43.629	372,349	36,243	302,821
Writing (cwts.)	3,114	28,428	2,825	26,967
All Other		2,177,547		2,183,077
		87,986,514		82,989,609

Pulpwood exports have been smaller this year, the total for the seven months being 742,012 cords, valued at \$7,332,441, as compared with 931,357 cords, valued at \$8,917,914 in the first seven months of 1928.

## New Washington Hotel SEATTLE



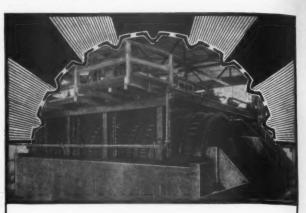
Home-like Comfort

Excellent Food

"In the Heart of Everything"

Rooms all with bath From \$3

SECOND at STEWART



#### IS YOUR BARKING CAPACITY

### **GUARANTEED?**

The U-Bar Barking Drum is guaranteed for two years at a minimum speed of 7½ R.P.M. (10 ft. diam.) running half-full of wood at an average of 3,000 working hours per year. This is all in addition to the usual guarantee of workmanship and materials.

## HOW THE U-BAR GUARANTEE INSURES BIG PRODUCTION

This guarantee insures BIG and sustained production. Three factors govern capacity: Interior Surface, Volume and Speed. Examine the U-BAR Drum from these angles:

 Interior Surface: U-BARS bark more quickly and cleanly with no unnecessary loss of wood fibre.

2. Volume: You can keep a U-BAR Drum HALF-FULL of slabs or logs all the time—a 10'x30' U-BAR Drum, for instance, carries a working load of five cords of wood. Think of it!

3. Speed: 7½ R.P.M. are guaranteed in the U-BAR Drum and many mills increase their capacity greatly by stepping this up to 10 R.P.M. Speed is important.

When you consider barking drums, insist on a capacity guarantee.

#### THE MORTERUD SYSTEM

Production records of the Union Bag and Paper Mills attest to the efficiency of the Morterud System of Indirect Soda and Sulphate cooking. It produces an even cook and a greater yield with forced circulation of preheated liquor. Steam is not introduced directly into the digester but circulates through a series of seamless steel pipes and the condensed water is pumped back to the boilers. Therefore there is no dilution in digester and less steam is used in the evaporation of liquor.

#### THE GIANT NEKOOSA BARK PRESS

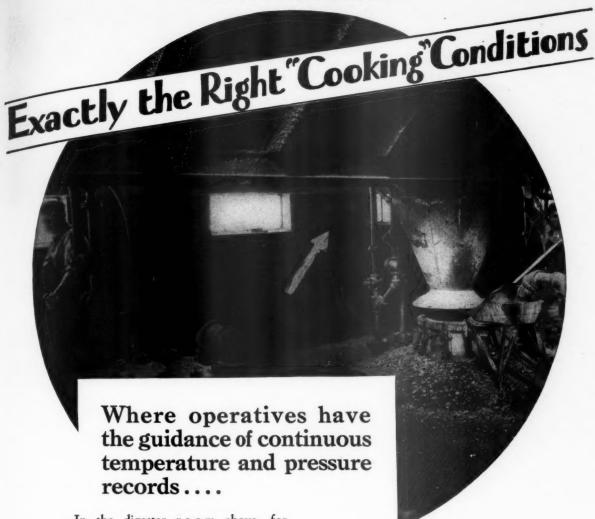
Make a steam generating asset out of your bark disposal problem with this wonderful Bark Press. It reduces the water in bark to 55% bone dry—which is almost natural water content. Simple operation. Strong and rugged construction. Surprisingly great economies result from the use of this machine.

Full Details Sent on Request

## Fibre Making Processes, Inc. chicago, U.S.A.

Canadian Barking Drum Co., Ltd., Drummond Bldg., Montreal

U-BAR



In the digester room above, for example, Bristol's Recording Thermometers and Gauges are shown conveniently mounted on the wall within ready access at all times.

By occasionally referring to the instrument charts workmen are enabled to determine whether or not temperature and pressure conditions are being held according to schedule. Thus, wrong conditions can be noticed almost as soon as they occur and corrected before any harm is done.

In this manner any pre-determined operating schedule can be duplicated

with dependable certainty day after day, and a consistently uniform quality of pulp produced.

Bristol's Instruments are simply designed and ruggedly constructed to withstand constant "shop" use. They have a minimum of moving parts, thus little to get out of order. With ordinary care and attention they should operate efficiently for years.

For complete details write

THE BRISTOL COMPANY WATERBURY, CONN.

Engineering Service without obligation.

# BRISTOL'S Recording Instruments and Automatic Control Equipment

#### News Print Production in July

The News Print Service Bureau's Bulletin No. 139 shows production in Canada during July, 1929, amounted to 229,045 tons and shipments to 227,502 tons. Production in the United States was 111,578 tons and shipments 112,616 tons, making a total United States and Canadian news print production of 340,623 tons and shipments of 340,118 tons. During July, 21,966 tons of news print were made in Newfoundland and 1,744 tons in Mexico, so that the total North American production for the month amounted to 364,333 tons.

The Canadian mills produced 194,680 tons more in the first seven months of 1929 than in the first seven months of 1928, which was an increase of 14 per cent. The United States output was 19,374 tons or 2 per cent less than for the first seven months of 1928. Production in Newfoundland was 13,942 tons, or 11 per cent more in the first seven months of 1929 than in 1928 and in Mexico 2,102 tons more, making a total increase of 191,350 tons or 8 per cent over the same period in 1928.

During July the Canadian mills operated at 84.8 per cent of rated capacity, United States mills at 76.5 per cent and Newfoundland mills at 107.2 per cent. Stock of news print paper at Canadian mills totalled 28,993 tons at the end of July and at United States mills 23,603 tons, making a combined total of 52,596 tons, which was equivalent to 3.3 days' average production.

NIODTE	ABJEDTCANT	PRODUCTION

THE THE PERSON OF THE PERSON O					
	Canada U	Jnited States	Nfld.	Mexico	Total
1929—July	229,045	111,578	21,966	1,744	364,333
Seven month	1,540,367	809,287	144,894	11,182	2,505,730
1928-Seven month	s .1,345,687	828,661	130,952	9,080	2,314,380
1927-Seven month	s.1,160,118	893,972	115,548	8,332	2,177,970
1926-Seven month	s .1,056,790	984,623	101,404	7,125	2,149,942
1925-Seven month	8. 869,386	884,503	41,088	7,434	1,802,411
1924-Seven month	s. 793,276	874,448	38,118	6,706	1,712,548
1923-Seven month	s. 726,960	884,971	37,185	7,000	1,656,116

#### Crown Zellerbach Income Increases

Report of the Crown Zellerbach company for the first fiscal year of unified operation, as of April 30, showed net income of \$4,661,823, equivalent after preferred dividends to \$1.72 per common share. This is compared with \$4,315,220 and \$1.55 in the previous year. Income during the year ending April 30 amounted to \$17.84 per share of preferred, as against \$16.51 last year.

Balance sheet of April 30 shows total assets of \$109,-190,568, of which \$20,354,492 were current, with \$7,890,395 in current liabilities, leaving net working capital of \$12,464,097.

#### The HOTEL CONGRESS

The stopping place in Portland for Pulp and Paper Men.



Sixth at Main Street PORTLAND OREGON

200 Rooms—200 Baths
Convenient Downtown
Location.

Reasonable Rates Prevail

LOUIS E. BOGEL, Resident Manager



## Hum-mer Electric CHIP SCREEN

Immense capacity!

Thorough removal of sawdust and fine particles!

Small floor space required!

Low power consumption!

Fully adjustable screening angle and vibration!

No lubrication!

No destructive shaking of supports or buildings!

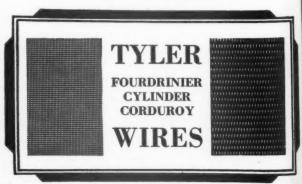
No belts or pulleys!

Trouble-free operation!

These are the features which make the Wood Chip Hummer a profitable investment for pulp and paper mills!

Write for Catalogue 54-P

The W. S. Tyler Company Cleveland, Ohio



# The Advantage of Beating with Big Rod Mill Units

BEATING a given tonnage of pulp with one suitable size Rod Mill is better than dividing the load among several smaller units.

This is particularly true where heavy tonnages are involved.

Uniformity of product is a decided advantage. Also simplification of feed and discharge piping, fewer motors and much less aggregate power requirements, reduction in maintenance... these are some of the advantages enjoyed by those already using large Marcy Open End Rod Mills.

And incidentally, a Marcy Mill about three times larger than any other Rod Mill is in operation and is taking about two-thirds the proportionate power.

Marcy Open End Rod Mills are showing the way towards unit rod mill work.

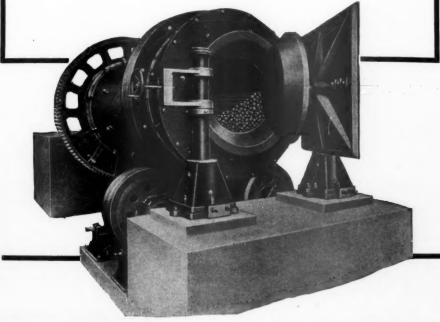
## MINE and SMELTER SUPPLY SCOMPANY

DENVER

NEW YORK, 225 Broadway

Lisensee under the Marcy Rod Mill Patents

Manufactured in Canada by William Hamilton Limited, Peterborough, Ontario



When writing to The Mine and Swelter Supply Co., please mention Pacific Pulp and Paper Industry

#### Crown Earnings Show Substantial Gain

Net income of the Crown Willamette Paper Co. for the first three months of the current fiscal year, covering the months of May, June and July, was \$1,069,267, after allowance for interest, depreciation, depletion and taxes. This figure represents a gain of approximately one-third as compared with the earnings of the same period a year ago.

When taken together with the earnings of its subsidiary companies, including Pacific Mills, Ltd., of Ocean Falls, B. C., Crown Willamette's earnings for the three months aggregated \$1,191,926 after prior charges, as compared with \$1,036,169 last year. This was 4.5 times bond interest requirements, 3.5 times first preferred stock interest charges, and more than 13 times second preferred dividend needs. The three-month period saw reduction of the bonded debt by \$264,000.

Balance sheet of the Crown Willamette and subsidiaries as of July 31 showed current assets of \$14,782,707, with current liabilities of \$2,852,138, a ratio of approximately 5 to 1.

#### Japanese Paper Production for May

Production by the mills of the Japanese Paper Manufacturers' Association during May amounted to 59,707 short tons and sales to 61,139 short tons, bringing the total for the first five months of 1929 up to 294,368 tons and 291,283 tons respectively. Newsprint paper accounts for nearly half of this output, with other foreign style printings making up an additional one-fourth.

## Sales Executive

now employed, desires connection with paper or pulp mill in similar capacity. Might consider mill agency. Fifteen years' experience; successful record. Can handle all details of sales promotion planning. Especially successful in handling sales force.

Address reply, Box 36, Pacific Pulp & Paper Industry, 71 Columbia Street, Seattle, Wash.

## MIDWEST HI-SPEED BEATERS

You have not served your Company's best interests until you investigate the NEW Mid-West Hi-Speed Beater. An intelligent comparison of performance and first cost will prove it. Write today.

THE MID-WEST MACHINE COMPANY, Dayton, Ohio

